

2 45 0176 3965



KANE MEDICAL LIBRARY STANFORD

STANFORD UNIVERSITY LIBRARY

11
20

LANE

MEDICAL



LIBRARY

Gift of
the Author





HISTORICAL DEVELOPMENT
OF THE
STANFORD SCHOOL OF MEDICINE

A THESIS
SUBMITTED TO THE SCHOOL OF EDUCATION
AND THE COMMITTEE ON GRADUATE STUDY
OF
STANFORD UNIVERSITY
IN PARTIAL FULFILLMENT
OF THE REQUIREMENTS FOR THE DEGREE
OF MASTER OF ARTS

By
Robert G. Whitfield
April, 1949

11646

Approved for the School of Education:

W. B. Smith

Approved for the Committee on Graduate
Study:

ACKNOWLEDGMENT

The writer wishes to express his appreciation and thanks to Dr. Ray Lyman Wilbur, Chancellor of Stanford University, Dr. William Herrick Northway, Assistant Dean of the Stanford School of Medicine, Dr. Robert E. Burns, President of the College of the Pacific, Miss Ruth Scibird, Reference Division of the University Library, Miss Alice Mitchell, Secretary of Interlibrary Loans, and to the following staff members of the Lane Medical Library in San Francisco: Miss Margaret Potter, Mrs. Anna Hoen, Miss Valentina Maltzeff, Mrs. Goyo Takahashi, and Mr. William Roberts.

The writer wishes especially to thank Dr. B. Frank Gillette of the Stanford University School of Education who acted as adviser in this thesis.

TABLE OF CONTENTS

Chapter	Page
I. PROBLEMS--NEEDS--IMPORTANCE OF ADEQUATE MEDICAL EDUCATION	1
II. ELIAS SAMUEL COOPER, FOUNDER OF THE FIRST MEDICAL SCHOOL ON THE PACIFIC COAST	7
III. THE MEDICAL DEPARTMENT OF THE UNIVERSITY OF THE PACIFIC	27
IV. THE PERIOD OF SUSPENSION	66
V. REVIVAL OF THE MEDICAL DEPARTMENT OF THE UNIVERSITY OF THE PACIFIC	74
VI. COOPER MEDICAL COLLEGE	105
VII. THE STANFORD SCHOOL OF MEDICINE	130
VIII. CONCLUSIONS	179
APPENDICES	
A. THE EARLY FACULTIES	181
B. ENTRANCE REQUIREMENTS	205
C. GRADUATION REQUIREMENTS	218
D. SOME OF THE EARLY TEXTBOOKS USED	225
E. FEES	233
F. FIRST ORGANIZATION OF THE FACULTY OF THE STANFORD SCHOOL OF MEDICINE AS ADOPTED BY THE BOARD OF TRUSTEES, 1909	244
G. THE FIRST CURRICULUM OUTLINE AS AMENDED AND ADOPTED BY THE STANFORD SCHOOL OF MEDICINE, 1909	249

APPENDICES (continued)

H. GRADUATES	251
BIBLIOGRAPHY	279

LIST OF ILLUSTRATIONS

Plate	Page
I Dr. Elias Samuel Cooper	8
II Dr. Levi Cooper Lane	106
III The Cooper Medical College as it appeared when first constructed	109
IV The Lane Hospital as it appeared when first constructed	115
V Dr. Ray Lyman Wilbur	139
VI The Anatomy and Bacteriology Building on the Stanford campus	144
VII The Lane Medical Library	145
VIII Dr. William Ophule	150
IX The Stanford University Hospital	152
X The Stanford School of Nursing	154
XI The Stanford Medical School in San Francisco	158
XII Dr. Loren Roscoe Chandler	170
XIII Ruth Lucie Stern Research Laboratory	171

CHAPTER I

PROBLEMS--NEEDS--IMPORTANCE OF ADEQUATE MEDICAL EDUCATION

Life is vital. Good health is essential to our hopes, our happiness, and our general well-being. It therefore behooves all of us to do all in our power to preserve life and improve health. With this in mind some have engaged in research and a basic study of life and its necessities to the end that all may benefit. Some have been the pioneers pointing and leading the medical profession onward to greater knowledge and superior skill in the maintenance of hope and enjoyment for all. In order to keep pace with the extremely rapid development of medical science during the past century some of these pioneers have recognized the growing need for special educational facilities that would serve to adequately train the "generals" and "lieutenants" of the medical army.

This thesis recognizes the need for the advance of medical education, and deals with the following problems connected therewith which come to light in the ensuing history of the Stanford School of Medicine:

1. The necessity for pioneers to initiate and maintain the development of medical schools.

2. The overcoming of professional and public opposition to the establishment of the first medical school in a new territory including the struggle to obtain the necessary city and state support.
3. Provision for proper and complete teaching facilities in the way of buildings, laboratory and demonstration equipment, and clinical facilities where students can obtain practical work with patients before they begin the practice of medicine.
4. The need for full-time salaried professors to instruct the students of medicine in university fashion.
5. The problem of ferreting out of the vast array of medical knowledge a curriculum which will best fit medical students for research and practice, and which leaves them a choice of elective work in their fields of special medical interest.
6. The very important requisite of adequate funds, not only to meet the needs and problems stated above, but to enable the medical school to progress and advance.

The needs and problems of adequate medical education which are encompassed in this history are those connected with the development of one medical school, in one section of the world, and during the last century, a comparatively brief, though important period of time. Furthermore, there is little doubt that in this research some things of importance have been omitted either through ignorance of them or because of space limitation. It might be thought of, therefore, as one stroke in the painting of a more complete picture of medical education.

In attempting to deal with some of the needs and problems of medical education, the historical method of

approach seems to be the most superior. Certainly the experimental method, although, in a broader sense, it has been used to some extent in the development of medical education, would be an impractical and illogical avenue of approach for research such as this. Again, philosophies have doubtless been intimately tied to the advancement of medical education, but still the philosophical method of approach to this work would not be direct or realistic. The historical method of approach is the best because through it a real and practical view of the problems and needs concerning medical education which have arisen in the development of the Stanford School of Medicine can be obtained. This direct and realistic view gives us a foundation in which we can look for flaws which we can correct by careful thought and consideration, and thus continue to build and progress.

Need for this history.—The eminent Dr. Emmet Rixford, long connected with the Stanford Medical School and its predecessor the Cooper Medical College, had, as his hobby, the writing of history. He had delivered, at the dedication of the Lane Medical Library in 1912, an address on the history of that library and of the Cooper Medical College. His intention to write a com-

plete history of the Stanford Medical School was not carried out because of his untimely death. Hence, to date, no complete history of the school has been organized. At present, Dr. Ray Lyman Wilbur, Chancellor of Stanford University, is engaged in gathering together original historical data about the Stanford Medical School which will become available in the future. This thesis is a preliminary outline which may serve for future enlargement of the history of the Stanford School of Medicine.

The Stanford School of Medicine, directly and indirectly, affects a countless number of persons, because through its research work and graduate doctors it deals with the vital problem of health. Although many people realize the importance of such an institution, they know little of the problems and the tremendous amount of work connected with its development and maintenance. It is more or less taken for granted. Furthermore, they have not the time nor the desire to glean information about the development of such an institution and its problems from a wide variety of sources. Hence it becomes necessary that it be gathered together en masse and organized into readable form in

order that people may gain an appreciation and conception of what makes the school's services to them possible. Then they may become aware of the necessity for their help in keeping the institution in such condition that it can best render its important services.

The sources used.--The sources used for the early part of this history have been, for the most part, the writings in early medical journals, and the published addresses of those directly connected with the events as they occurred. The minutes of the meetings of the Board of Trustees of the University of the Pacific (now the College of Pacific in Stockton) were of much help. Annual announcements of the medical school from 1859-1945 were freely used. For the chapter on the Cooper Medical College much material was obtained from Dr. Emmet Rixford's account of that school. From Orrin Leslie Elliott's book, "Stanford University, The First Twenty-Five Years," a valuable account of the negotiations between Stanford University and the Cooper Medical College was obtained.¹ For the chapter on the Stanford School of Medicine, the Annual Reports of the

¹Orrin Leslie Elliott was the first Registrar of Stanford University, and held this position for over thirty years.

Presidents of Stanford University were the most valuable source used.

Newspaper accounts have been scanned and occasionally used, but were, on the whole, found to contain inaccuracies which deemed their extensive use undesirable.

The libraries on the Stanford campus, and particularly the Lane Medical Library in San Francisco contain all of the material represented in this work with the exception of the minutes of the Board of Trustees of the University of the Pacific which were obtained at the College of Pacific in Stockton.

CHAPTER II

ELIAS SAMUEL COOPER, FOUNDER OF THE FIRST MEDICAL SCHOOL
ON THE PACIFIC COAST

Dr. Elias Samuel Cooper might well be said to be the prime originator of the present Stanford Medical School; and so in the beginning it is fitting to give an overview of his very interesting life. In 1858, he established the first medical school on the Pacific coast, the Medical Department of the University of the Pacific. This school was the parent of the Stanford Medical School.

Early background and schooling.—Elias Samuel Cooper was born near Somerville, Butler County, Ohio, in 1832. He was the son of Jacob and Elizabeth (Walls) Cooper. His elder brother, Esaias, entered the medical profession in which he made a prominent mark; the younger brother, Jacob, became an eminent professor. Levi Cooper Lane, Cooper's nephew and intimate associate, wrote a picturesque description of some of the forces which helped to mold Cooper's remarkable character.

. . . . A paternal and maternal influence, each strongly defined in character, by precept and ex-



ELIAS COOPER
1810-1862

Elias Samuel Cooper

ample imparted to young Cooper the inceptive germs of mentality, and added to the same that momentum and accuracy of aim which went directly to the destined point.

Of the extrinsic circumstances, which in many cases, far more than is known, give shape and feature to the youthful mind, may be mentioned the beautiful landscape of hill and valley in which his early home retired; these were yet half-covered with those majestic groves--beech, walnut, maple and oak--for which the Ohio valley is famous. During his rambles among the quiet seclusion of such scenery, armed with his rifle in quest of game, he formed an attachment for all that pertains to Nature. Amid such scenery and such life, no doubt, were developed those primitive moldings of self-reliance. Those habits of independent thought, and power of living within himself; which finally assumed a permanent shape and became the distinguishing traits of his mind in his mature years. Few men have exhibited so large a share as he of that internal self-sustaining power, which enabled him to live independently of those props and supports which are indispensable to most men.¹

Cooper commenced the study of medicine at the age of sixteen, under the direction of his brother, Esaias, who was by this time a prominent physician in the West (the West, at this time, referring to Ohio and the surrounding states). His collegiate studies began in Cincinnati, Ohio, and were completed at the University of St. Louis, Missouri, where he received his M.D. degree in 1841.²

¹L. Cooper Lane, "Elias S. Cooper, Representative Men of the Pacific, ed. by Oscar Z. Shuck (San Francisco: Bacon and Company, Printers and Publishers, 1870), p. 238.

²L. Cooper Lane, "Editor's Table," The San Francisco Medical Press, III (October, 1862), pp. 227-228.

Early professional practice.--At nineteen years of age Dr. Cooper commenced the practice of medicine in Danville, Illinois. His practice grew very rapidly. During the summer months he realized nearly \$800 per month, an enormous amount for a western country practice. Here in Danville he won his first surgical triumph with the successful removal of a large portion of the lower jaw of a patient. This operation showed rare surgical talent, and indicated the need for a larger field of practice. Near the age of twenty-two Dr. Cooper moved to Peoria, a growing town in Illinois.

During his first year at Peoria he opened a dissecting room, secured a class consisting of medical students and practitioners, and delivered lectures upon anatomy accompanied with demonstrations upon cadavers. Because of the fruits of his successful practice in Danville he was able to devote most of his first three years in Peoria to his dissecting room and a careful study of the great principles of medicine, with emphasis on surgery.¹

Dr. Levi Cooper Lane, who was with his uncle at this time, described his study habits as follows:

During this time, I am able to bear witness,

¹Ibid., p. 228.

that, in no case, have I ever seen such devotion as a student. Day, as well as the greater portion of the night, one might ever find him within his study, or analyzing the textures of the cadaver. When fatigued from the confinement of study, his habit was to rise up, and pace the room for some moments, and sing with great vivacity some lively song;--the happy energy which pervaded his manner at such times, showed that his ardent genius was constantly feasting upon the inspirations which were furnished by his studies and researches. At this time, he usually retired between three and four in the morning, and rose between seven and eight, apparently as much refreshed as those who spend the whole night in sleep. The motto which he had inscribed on the wall, at his bedside, was that of the old Greek painter Apelles--Nulla dies sine linea.¹

Dr. Cooper's zeal in studying medicine indicated that someday he would win high laurels. He soon established his reputation as a surgeon in Peoria by a brilliant series of operations for the removal of deformities of the eye and face. His success created jealousy, however, and some of his enemies began an attack on him in regard to his dissections. A local newspaper printed article after article of a sensational character until public passions were aroused to the point where they wanted to compel him to leave the city. Flaming handbills, headed with the title, "Rally to the Rescue of the Graves of Your Friends," were posted in all parts of the city, calling for an indignation meeting of the people. Not daunted by these threats Dr. Cooper attended

¹Ibid., pp. 228-229.

the meeting himself together with some friends. At the meeting, a man whom the crowd thought was one of their ranks, but who was actually a "Cooperite", as the friends of Cooper were called, rose up, and pretending to be drunk, gave a very humorous speech which changed the mood of the crowd from anger to laughter and turned the whole affair into a farce and matter of ridicule. The crowd soon dispersed and went home. However, his enemies were persistent and turned to the strong arm of the law, bringing prosecution after prosecution against Cooper for dissection. He was honorably acquitted in each case.¹ It was not to be many years until he was to encounter similar resentment to dissection aroused by enemies of the medical school which he was to found on the Pacific coast.

After Cooper had been in Peoria about five years he established there a surgical infirmary for diseases of the eye and ear and for removal of deformities of the lower extremities, especially clubfoot. It was so successful that at the end of six months he had to purchase a second building even though the first was large. His two buildings were constantly crowded with people, and his reputation as an oculist and orthopedic surgeon

¹Ibid., pp. 229-230.

soon extended to the neighboring states. His practice became very lucrative.¹

While in Illinois Cooper was an active participant in the medical societies there. He served as president of the Knox County Medical Society in 1853. By the age of thirty-one he had come a long way in his chosen profession, and yet his ambition was not satisfied. At this time he was nursing an idea very close to his heart. He wanted to play a vital part in the founding and building of a new medical school.² This idea was fired by his acquaintance with Dr. Daniel Brainard who was the founder of Rush Medical College in Chicago.³

Dr. Cooper's desire to found a medical school, together with his need for a larger field in which to employ his surgical talent, and a climate more suitable for his failing health, led him to seek a new home.⁴ He decided on a trip to Europe after which he would

¹Ibid., p. 231.

²Ibid., p. 232.

³Emmet Rixford, "History of the Cooper Medical College," Address at the Dedication of the Lane Medical Library, (Stanford: Stanford University Press, 1912), p. 10.

⁴L. Cooper Lane, "Editor's Table," The San Francisco Medical Press, October, 1862, p. 232.

settle in San Francisco. The Peoria News wrote of his departure as follows:

We learn that our fellow-citizen, the young and savant Doctor E. S. Cooper, leaves this morning for a voyage to Europe, which he desires to visit before settling in San Francisco, where he intends, hereafter, to reside. We know few men of his profession more worthy than this Doctor of the high reputation he has acquired by his ability, during his sojourn in our city. During the last two years his Infirmary has constantly been full of patients, from this State, and even from the neighboring States. Their always increasing number is the best proof one could give of the efficacy of the treatment of the Doctor in their cases. We congratulate our friends of Oregon and California at the happy advantage they have of receiving among them a 'medical man' of so much capacity. We do but express the individual opinion of every one in this city, (Peoria, Illinois) when we say that his energy, indefatigability, and his unquestioned talent, are not less than those of any man of his profession. We entertain the most ardent wishes for his prosperity and success in the new State which he has selected for his residence.¹

It was during the year 1854 that Cooper visited Europe, and though in ill-health at the time, he made the acquaintance of several eminent medical men. At Edinburgh he attended the clinics of Syme and Miller; in London, those of Fergusson and Erichsen; in Paris, those of Velpeau, Jobart, Melaton, and Ricard. He also observed

¹Peoria News, 1854, quoted in David Wooster, "Editor's Table," Pacific Medical and Surgical Journal, Vol. II (1859), p. 499.

the medical institutions of these cities.^{1,2}

Cooper in San Francisco.--Soon after returning from Europe Dr. Cooper left for California by steamer. A companion on the steamer was Captain James M. McDonald, and the friendship which ripened on this voyage was the reason for Captain McDonald's generous gift to the Cooper Medical College forty years later.³ Arriving in San Francisco in the spring of 1855, Cooper began the practice of Surgery. He was not warmly received because the profession in San Francisco frowned upon newcomers. Dr. Lane tells of some of the difficulties which his uncle had to face after his arrival in San Francisco.

The profession of medicine was well represented in San Francisco at that time. To illustrate the difficulties under which a new member of the profession labored at the time of Dr. Cooper's arrival, in order that the non-professional reader may have a correct understanding of the same, would be, perhaps, impossible. Suffice it to say, that those who first came founded on the mere fact of prior arrival and earlier residence a claim to precedence almost equal to superior caste and prerogative; whence sprung a feeling which viewed with cold distrust, if not pos-

¹L. Cooper Lane, "Editor's Table," The San Francisco Medical Press, October, 1862, p. 252.

²James Morison, M.D., "Obituary", Pacific Medical and Surgical Journal, Vol. V, (1862), p. 308.

³Emmet Rixford, "History of the Cooper Medical College," Address at the Dedication of the Lane Medical Library, (Stanford: Stanford University Press, 1912), p. 10.

itive enmity, any attempt to enter the self-privileged ranks. In such a professional circle, a position like that which was due to Dr. Cooper could be attained by no one who was unwilling or unable to meet, battle with, and overcome a well-organized opposition. In our subject were united those traits which most admirably adapted him to wage such a contest, and carry it to a triumphant issue. Few conquerors have known so well as he how to turn to good account the fruits of their victories. Conciliation, like an attending spirit, was ever present in his heart, and, as it were, held the pen ready to blot out the record and even the memory of each injury which was done him. A most intimate acquaintance with him, and with many incidents in his life, convinced the writer that this trait of character was natural with him, and was not the offspring of policy, which sometimes dictates such a course. It is also true though it may seem paradoxical, that this conciliatory spirit was coupled with a ready courage for defence, and even for assuming the offensive, when all other means failed; in fact, nature had endowed him most richly with all the resources of both peace and war; yet it was a rule of his life never to resort to the weapons of the latter until every overture of the former had been rejected.¹

At this time California was a very young state, having just been admitted to the Union as a free state in 1850. The gold rush had been going on for some time, and the population of the whole state was nearly 360,000 people. San Francisco's population was about 58,000 people. A trip to Sacramento from San Francisco was then a ten to twelve hour journey by steamboat.

Very soon after his arrival in San Francisco Dr.

¹L. Cooper Lane, "Elias S. Cooper," Representative Men of the Pacific, ed. by Oscar T. Shuck (San Francisco: Bacon and Company, Printers and Publishers, 1870), p. 238.

Cooper established Cooper's Eye, Ear, and Orthopedic Infirmary on Mission Street between Second and Third. He advertised his Infirmary in several different languages.¹ The National Association's Code of Ethics of 1847 had stated in Article II, Section 3 that public advertisement was derogatory to the dignity of the profession, and since Cooper was advertising publicly, some of his envious competitors used this channel to attack him and accuse him of quackery.

Cooper and the California State Medical Society.—

Dr. Cooper immediately set to work to organize a society which would bring together the physicians in different parts of the state for their mutual benefit. To this end he sent circular letters to most of the physicians in California inviting them to meet for the organization of a State Medical Society. A convention was held in Sacramento on March 12, 1856.^{2,3} This convention resulted in the birth of the first California State Medical Society.

¹David Wooster, "Editor's Table," Pacific Medical and Surgical Journal, Vol. II (1859), pp. 486-487.

²James Morrison, M.D., "Obituary," Pacific Medical and Surgical Journal, Vol. V (1862), p. 308.

³Washington Ayer, M.D., "Reminiscences of the Life and Labors of Elias Samuel Cooper," Occidental Medical Times, Vol. VII (1893), p. 602.

Cooper was elected as one of the vice-presidents, and presented the Society's first scientific paper at this time. Other medical men present at this meeting, who later were to be connected with the medical school, were R. B. Cole, H. Gibbons, Sr., J. P. Whitney, J. F. Morse, and J. Price.¹ Much discord was aroused by men who opposed the formation of such a society. In 1857, the second meeting of the California State Medical Society was again held in Sacramento, and Henry Gibbons, Sr. was elected President.² It was a success with several new ventures being inaugurated and future plans layed down. In 1858, the third meeting of the society was held in San Francisco. It was at this meeting that R. B. Cole presented a report, touching on the delicate subject of female chastity, which caused so much dissension among the members of the society that many refused to attend any more meetings.³ Also at this time the

¹Minutes of the Proceedings of the Convention and of the Medical Society of the State of California. Held in Sacramento, March, 1856, California State Medical Journal, ed. by John F. Morse, July, 1856, pp. 5-8.

²L. C. Lane, In Memoriam of Dr. Henry Gibbons (San Francisco: Howard & Pariser, 1885), p. 14.

³Henry Harris, California's Medical Story (San Francisco: J. W. Stacey, Inc., 1932), pp. 357-358.

publication of the State Medical Journal, which John F. Morse had been publishing and editing as a "mouthpiece" for the California State Medical Society, was suspended.¹ Cooper, however, fought vigorously to hold the society together, even making a large contribution to help settle the monetary debts of the organization. The California State Medical Society lingered on for three more years, with Cooper acting as corresponding secretary. In January, 1860, he began publishing the San Francisco Medical Press. One of his prime purposes for starting this journal was "to inquire into and remove, as far as possible, the sources of discord which have reigned to so great an extent in these organizations."² In this quarterly publication he wrote article after article during 1860 and 1861 to try to keep the State Medical Society going.³⁻⁹ Despite his efforts, the

¹David Wooster, "Editor's Table," Pacific Medical and Surgical Journal, Vol. I (1858), p. 32.

²E. S. Cooper, "Editor's Table," San Francisco Medical Press, January, 1860, p. 1.

³Ibid., pp. 49-57.

⁴Ibid., p. 57.

⁵Ibid., July, 1860, p. 187.

⁶Ibid., October, 1860, p. 232.

⁷Ibid., pp. 249-252.

⁸Ibid., January, 1861, p. 39.

⁹Ibid., April, 1861, p. 101.

attendance at the sixth annual meeting held in Sacramento in February, 1861 was discouragingly small. The society was now too far gone to be revived, and besides Cooper's health was steadily becoming worse. He died in 1862 and the California State Medical Society was suspended until 1870.

Cooper as the West's leading surgeon.— Dr. Elias Samuel Cooper was a bold and original operator whose remarkable surgical feats were guided by an unerring knowledge of anatomy. His success was further assured because of his free use of alcohol on both his instruments and on parts of the body on which he operated; this practice being in advance of his time.¹

Cooper twice ligated the arteria innominata, with better success than had hitherto been obtained. He repeatedly removed ovarian tumors with much success. During the twelve months prior to his death he had excised the head of the os femoris four times. Removal of deformities of the eye as well as operations for correction of club-foot were operations which Cooper performed many times and with uniform success.² Cooper treated

¹E. Rixford, "E. S. Cooper," A Cyclopedic of American Medical Biography, ed. by H. A. Kelly (Philadelphia and London: W. B. Saunders Co., 1912), Vol. I, p. 201.

²L. Cooper Lane, "Editor's Table," San Francisco Medical Press, October, 1862, p. 235.

diseased joints by free incisions; popularized the metallic suture for uniting fractures; used free incisions in neuralgic or diseased structures; and freely explored the thoracic cavity by the excision of ribs. He also performed the Caesarean section twice; both patients recovering.¹

The operation which Cooper regarded as the most difficult of his life was performed in San Francisco on April 9, 1857. It concerned the removal of a piece of iron, an inch long and three-quarters of an inch thick, which, by the explosion of a gun-barrel, had been driven into the post-cardiac region of the chest, and had remained there for seventy-four days, previous to the patient's applying to Dr. Cooper. The patient was so near dying that almost every physician who saw him discouraged him from having anything done. The patient, however, insisted, and Dr. Cooper operated successfully. By August 1st of the same year the patient reported himself as feeling well. Cooper often spoke of this operation to his nephew, Dr. Levi Cooper Lane, and told him that after he had selected all of the instruments appearing necessary for the case another pair of awkward forceps kept constantly suggesting itself to his mind; so he slipped

¹L. Cooper Lane, "A Tribute to Dr. E. S. Cooper," Occidental Medical Times, Vol. VII (1893), p. 609.

them into his pocket. During the operation, he located the foreign body beneath and behind the heart after a long and tedious search, and failing to grasp it with every other instrument that he had selected, he withdrew the aforementioned pair of forceps from his pocket, and found them exactly suited for extracting the piece of metal. This operation received wide publicity, and was the keystone to Cooper's surgical success on this coast.¹ It was written up in the *American Journal of the Medical Science* in 1858.² Cooper's own report of this operation is also available.³

In November, 1857, Dr. Cooper performed the first successful Caesarean section ever to be performed in San Francisco. A long drawn out and sensational lawsuit developed over this operation. Shortly before operating Dr. Cooper had called in a certain Dr. David Wooster as consultant, and after a lengthy discussion Cooper convinced Wooster that a Caesarean section was the best

¹L. Cooper Lane, "Editor's Table," San Francisco Medical Press, October, 1862, pp. 236-237.

²American Journal of the Medical Science, Vol. 35, (1858), p. 229.

³E. S. Cooper, Report of an Operation For Removing a Foreign Body From Beneath the Heart. Published by the San Francisco County Medical Chirurgical Association. (San Francisco: Whitton, Towne and Co., Printers and Publishers, 1857).

method of proceeding. The operation was performed with great difficulty; Cooper using the knife and Wooster assisting. The patient recovered, and Wooster, seeing a chance to gain in reputation, began implying that the success of the operation was due equally as much to himself as to Cooper who had wielded the operating knife. Cooper spoke of the operation at the State Medical Society's meeting in February, 1858. At this time, Dr. Wooster, evidently feeling that Cooper was getting more than his share of the credit, began disagreeing with Dr. Cooper's version of the operation; finally becoming so overcome with jealousy that he started to slander Cooper at every opportunity. At the same time he sidled up to the lady on whom the operation had been performed, and caused her to believe that she was now in poor health as a direct result of the operation. He finally inveigled her to bring suit against Cooper for malpractice, and the case came to court. The trial, which opened in the fourth District Court of San Francisco on November 22, 1858, was a long drawn out affair, and served mainly to split the medical profession in San Francisco into two groups; the friends of Cooper and the enemies of Cooper. The jury could not reach a verdict after twenty-four hours,

and so the case was dismissed.^{1,2,3,4} Repercussions of this operation and trial resounded for the next four years through the editorials of the Pacific Medical and Surgical Journal edited by Wooster, and the San Francisco Medical Press edited by Cooper.

The Pacific Medical and Surgical Journal and the San Francisco Medical Press.--The Pacific Medical and Surgical Journal was established in January, 1858, chiefly at Cooper's suggestion and through his influence.⁵ It was ironical that Wooster should be a co-editor of this journal during the first years of its existence, and use it as a weapon with which to defame Cooper. Wooster remained as editor of this monthly medical journal until

¹Ludwig A. Emge, San Francisco's First Successful Cesarean Section, Presidential Address to the Pacific Coast Society of Obstetrics and Gynecology.

²Proceedings in the Case for Damages for Alleged Malpractice, in the Performance of the Caesarian Operation, Elkanah H. Hodges and Mary E. P. Hodges, Plff., vs. E.S. Cooper. Tried in the fourth District Court, S. F. John S. Hager, Judge, November, 1858. Phonographically recorded by Charles A. Sumner.

³Washington Ayer, "Reminiscences of the Life and Labors of Elias Samuel Cooper," Occidental Medical Times, Vol. VII (1898), p. 605.

⁴D. Wooster, "Cesarian Operation--Case--False Diagnosis--Recovery of the Woman," Pacific Medical and Surgical Journal, Vol. I (1858), pp. 89-96.

⁵James Morison, "Obituary," Pacific Medical and Surgical Journal, Vol. V (1862), p. 309.

November, 1861. From then until 1865 the editors were Blake, Fourceaud and J. F. Morse.

Cooper began publication of his quarterly journal, the San Francisco Medical Press, in January, 1860, and held ^{edited it by himself} ~~this position~~ until May, 1862, when his health failed him completely. Dr. Levi Cooper Lane then took over the editorship which he kept through January, 1864. He was succeeded by Drs. R. B. Cole and E. Gibbons, Sr. Cole soon left for Europe, however, and Gibbons carried on alone. In 1865, the Pacific Medical and Surgical Journal and the San Francisco Medical Press merged, and H. Gibbon's took over the editorship which, together with his son, he held for many years following. In 1866 Gibbons called the journal the Pacific Medical and Surgical Journal and Medical Press. In the following years Medical Press was dropped from the name.

Cooper establishes his medical school.--As previously mentioned, the founding of a medical school had been one of Cooper's cherished ideas for years. This idea came to life in 1858 when Cooper, together with a few of his friends, organized the Medical Department of the University of the Pacific. This was right at the time when the case against Cooper for malpractice was before the court. As a result of this, Dr. Wooster and a few other men who

were anxious to halt Cooper's rising fame began doing all in their power to prevent his school from becoming successful. However, Dr. Cooper was an exceptionally strong and brilliant man, and was fully able to thwart these harmful elements. His enemies were persistent in their attacks on the school. Nevertheless, under Cooper's leadership it became more and more firmly entrenched. Unfortunately Cooper's health could not withstand the grueling pace which he set for himself throughout the years of his professional life, and he died four years after founding his school. Lacking his strong and guiding hand Cooper's school lasted for only two years after his death. However, it was to be revived again in 1870 by his nephew and loyal friend, the able Dr. Levi Cooper Lane, who was ably seconded by the eminent Henry Gibbons, Sr.

CHAPTER III

THE MEDICAL DEPARTMENT OF THE UNIVERSITY OF THE PACIFIC

In 1858, Dr. Elias Samuel Cooper, with the aid of his remarkable organizing ability, gathered around him a group of able medical gentlemen, and set out to organize his medical school. Included in this original group along with Dr. Cooper were the Drs. R. Beverly Cole, Isaac Rowell, and James Morison.

This group of "self-appointed" teachers, having no authority to grant the medical degree, decided to attempt an affiliation with the University of the Pacific. This Methodist Episcopal institution, established in 1851, was located in Santa Clara, a small town on the outskirts of San Jose and about forty miles from San Francisco. It is now the College of Pacific in Stockton, California. Dr. R. Beverly Cole, acting as secretary for the group, presented a proposition expressing this desire to the Board of Trustees of the University of the Pacific. The Board met on September 16, 1858, and moved that this proposition be referred to a committee of three to take the matter under consideration.¹

¹Minutes of the Board of Trustees of the University of the Pacific, September 16, 1858.

It did not take the Board members long to decide in favor of having a medical department. Less than a week later they held another meeting, and it was moved that the professors of the medical department be elected. The Board of Trustees then adopted the following resolution:

Whereas, Drs. E. S. Cooper, Isaac Rowell, James Morison, and R. Beverly Cole, Medical practitioners in San Francisco, State of California have appointed and organized themselves for the purpose of establishing a Medical College in San Francisco and whereas the above named gentlemen have by their representative R. Beverly Cole, M. D. submitted a proposition to this board, to come under their supervision and control, as the Medical department of the U. of P. and whereas it is distinctly stated and understood that in accepting the proposition of Messrs Cooper, Rowell, Morison and Cole, no pecuniary liabilities or responsibilities are assumed by the Board. Therefore, Resolved, That the proposition submitted to this Board by the gentlemen above named be and it is hereby accepted, and they are hereby constituted the Medical Department of the U. of the P. in San Fran. It being understood that the Professors in the Medical and scientific departments shall be confined in their administrations to their separate departments.

Dr. E. S. Cooper	Prof. Anatomy, Surgery
Dr. Isaac Rowell	Prof. Materia Medica
Dr. James Morison	Prof. Pathology, Principles and Practice of Medicine.
Dr. R. Beverly Cole	Prof. Obstetrics, Diseases of Women and Children, and Physiology.

Resolved that the Pres. and Sect. of this Board inform R. Beverly Cole M. D. of the action of this Board upon his proposition and assure the gentlemen above named as Medical professors in the U. of the P. of our pleasure upon the consumation of the agreement by which they are constituted the Medical Department of our University.¹

¹Ibid., September 23, 1858.

During the next seven months Cooper and his cohorts were making preparations for the formal opening of their school. The first session was to begin on the first Monday in May, 1859. On December 7, 1858, two more faculty members were elected by the Board of Trustees. They were Benjamin R. Carman, M. D., Professor of Materia Medica, and the Hon. George Barstow, Professor^{of} Forensic Medicine or Medical Jurisprudence. Dr. Isaac Rowell, who had been elected previously as Professor of Materia Medica, now became Professor of Chemistry.¹

The first Announcement of the Medical Department of the University of the Pacific was published early in 1859. It contained much interesting information in regard to the new school. The faculty was presented as mentioned above. The course of lectures was to run for only eighteen weeks. San Francisco's climate was publicized as being one of the best on the globe for the all year around study of anatomy in the following manner:

. . . . material for dissection is abundant and cheap, and our salubrious breezes not only preserve the cadaver for an indefinite length of time, but secure the health of the student from injury, the consequence of effluvia, so constant an attendant

¹Ibid., December 7, 1859.

upon dissection elsewhere.¹

Clinics were to be established in connection with the lectures so that all varieties and stages of diseases might be studied at the bedside. Professors Morison, Cooper and Cole were to have charge of the Medical, Surgical and Obstetrical clinics respectively. Outdoor patients were to be prescribed for before the class, and opportunities were to be afforded the students for observation and practice under the guidance of one of the professors. The chair of Medical Jurisprudence, a science rarely taught in the medical schools of the United States, was to be given because of the many casualties, injuries, and deaths from violence, and cases of poisoning and insanity occurring in California involving legal investigation. Of great interest was the report that the course in surgery would include demonstrative surgery on cadavers, and experimental surgery by vivisection. Members of the class would be permitted to assist in these experiments upon animals, and would be expected to repeat them under the eye of the professor afterwards. They wrote of the importance of vivisection

¹Announcement of the Medical Department of the University of the Pacific, San Francisco, California, Session of 1959 (San Francisco: Towne and Bacon, Book, Card and Fancy Job Printers, 1859).

as follows:

. . . . This is an exercise above all others calculated to school the hand, the nerve, and the eye, of the pupil, and there by give him the experience he at once requires, in performing the duties of an operative surgeon; a feature in medical education, however, almost entirely neglected in many other medical schools.¹

In order to graduate, the candidate would have to meet the following requirements: He must be of good moral character, and at least twenty-one years of age. He must have attended two full courses of lectures in some regular and recognized medical school, one of which shall have been at this college. He must have studied medicine for not less than three years, and have attended at least one course of clinical instruction in an approved institution. He must present a thesis on some medical subject in his own handwriting, and of his own composition to the Dean of the Faculty; and exhibit to the Faculty, at his examination, satisfactory evidence of his professional attainments. If, after his examination, the candidate should receive three negative votes from the Faculty, he would be entitled to another examination. Should he decline this, he could withdraw his thesis and graduation fee, and not be considered as rejected. The candidate must attend the public commencement unless excused by the Faculty.

¹ Announcement of the Medical Department of the University of the Pacific, San Francisco, California, Session of 1858 (San Francisco: Towne and Bacon, Book, Card and Fancy Job Printers, 1858).

As for fees; there was to be a five dollar matriculation charge to be paid at once; a thirty dollar fee to each professor, payable in advance; and a fifty dollar graduation fee. Another entry stated that students could obtain good board in San Francisco at from six to ten dollars per week, or even less if they so desired. For the purpose of assisting young men who could not finance their medical education a beneficiary arrangement was to be made. It was explained in the announcement as follows:

For the purpose of assisting meritorious young men, the Faculty will receive, annually, a limited number of beneficiaries, who will be required to pay fifty dollars each, towards the support of the institution, together with the matriculation fee.

Those who are desirous of availing themselves of this foundation, must present to the Dean of the Faculty, as early as possible, satisfactory evidence, showing them to be of good moral character and of appropriate elementary education, and so circumstanced as to require this assistance.¹

The announcement further stated that the Faculty, with a view of increasing the facilities for medical instruction without additional cost to the student, would deliver annually a gratuitous preliminary course of lectures upon subjects of importance, commencing on the

¹Announcement of the Medical Department of the University of the Pacific, San Francisco, California, Session of 1858 (San Francisco: Towne and Bacon, Book, Card and Fancy Job Printers, 1859).

first of April, and continuing till the commencement of the regular course.¹

The inauguration and first session.--The opening ceremonies of the Medical Department of the University of the Pacific were held in Musical Hall, San Francisco, on May, 1859. Addresses were delivered by the Reverend Jesse T. Peck, D.D., the Honorable George Barstow, and the Reverend Mr. Cutler. The Reverend Peck, holding high hopes for the school, spoke of it on this occasion as follows:

. . . . other similar institutions will doubtless arise, each fulfilling its peculiar claims to the public consideration and patronage; but as the Medical Department of the University of the Pacific will inevitably be the oldest school of medicine and surgery on the Pacific Coast, let us resolve that it shall be the best.²

The Reverend Mr. Cutler paid tribute to the faculty of the new medical school as follows:

. . . . All honor, then, to the zeal and enterprise of those men who have founded this department of the University of the Pacific. It should bear the name of Cooper, written on its very front. By its success and stability as an institution for the promotion of surgery and medicine--the first established

¹Announcement of the Medical Department of the University of the Pacific, San Francisco, California, Session of 1859 (San Francisco: Towne and Bacon, Book, Card and Fancy Job Printers, 1859), pp. 1-15.

²Addresses at the Opening of the Medical Department of the University of the Pacific at Musical Hall, San Francisco (San Francisco: Towne and Bacon, 1859).

on the Pacific Ocean--it will carry down to posterity the names of Cooper, and Morison, and Rowell, and Cole, and Garman, and Barstow, names already honorably associated with learning, ability and skill in their professions; and the deep satisfaction will be theirs, of here planting a seed, the leaf of whose tree shall be for the physical healing of this and generations to come.¹

The new medical school was now formally inaugurated and the sessions commenced. They were held in the top story of Dr. Cooper's office on Mission Street below Third in San Francisco. Dean of the Faculty, Cole, felt that these meeting quarters were beneath the dignity of such an institution, which was to some day hold a prominent place among the educational institutions of the country, and he wanted to rent a more conspicuous building up town. To this end he himself paid the rent for a part of Union Hall which then stood on Howard Street near Fourth, but it was not long before they again moved back to Dr. Cooper's building.²

Thirteen students were matriculated in the first session, and by September, two of them, having taken a full course of lectures before attending here, were

¹Addresses at the Opening of the Medical Department of the University of the Pacific at Musical Hall, San Francisco (San Francisco: Towne and Bacon, 1859), pp. 6-20.

²E. Rixford, "History of the Cooper Medical College," Address at the Dedication of the Lane Medical Library (Stanford: Stanford University Press, 1912), p. 10.

ready for graduation. The Board of Trustees of the University of the Pacific passed the following two resolutions concerning the issuance of medical degrees:

First--That upon the recommendation from the Faculty of the Medical Department certifying the proper qualifications in character and acquirements, this board will issue its mandamus for the graduation of candidates to the degree of Doctor of Medicine; and the same order shall be observed in conferring the honorary title of Doctor of Medicine.

Resolved second;--That the Diplomas of graduates in this Department shall be signed by the President of the University and Professors of the Medical Department and sealed with the Medical seal of the University.¹

On September 13, 1859 the degree of Doctor of Medicine was conferred on the two graduates.² Thus the Medical Department of the University of the Pacific closed its first session. This was noted in the minutes of the Board of Trustees as follows:

The Medical Department has just closed its first session under auspicious circumstances. The faculty matriculated thirteen students of whom two received the degree of M.D.. The Department appears to be in a flourishing condition.³

About the faculty.--Dr. Cooper, although an able teacher, was not a gifted speaker. Washington Ayer, a close friend to Cooper, later wrote of his lectures in

¹Minutes of the Board of Trustees of the University of the Pacific, June 7, 1859.

²Ibid., September 13, 1859.

³Ibid., September 16, 1859.

the following manner:

As a lecturer he was not eloquent. He stood before his class dignified in personal simplicity, and like a stream--deep and clear, whose course cannot be mistaken. He was clear in his views, and taught practical truths free from the dazzling allurements of speculation. He was faithful and earnest in his teachings, but never indulged in lofty flights of oratory nor flourish of rhetoric.¹

Dr. R. Beverly Cole had perhaps the most colorful background of any of the members of the faculty. He had arrived in San Francisco from the East in 1852. When the historic murder of James King occurred in 1856, Cole, who was then Surgeon-General on the staff of the Grand Marshall of the Vigilance Committee, cared for the wounded man at first. Soon after, however, Dr. H. H. Toland together with Drs. Hammond, Bertody, and Gray took over the patient and Cole withdrew highly chagrined. James King died shortly after that, and Dr. Cole then announced publicly that King's injury had not been a dangerous wound, and that with ordinary care the patient should have lived. He said a sponge had been left in the wound for five days, which was gross malpractice. Because of this and other incidents which followed from it Cole and Toland became bitter enemies.² In spite of this, Cole eventually was

¹Washington Ayer, "Reminiscences of the Life and Labors of Elias Samuel Cooper," Occidental Medical Times, Vol. VII (1893), p. 606.

²John W. Shuman, California Medicine (A Review) (A. R. Elliott Publishing Company, 1930), p. 64.

to become dean of a medical school which Toland was to found. At the State Medical Society's meeting in 1858, Cole, who was Chairman of the Obstetrics Committee, made the following pronouncement about the women of California:

. . . . they yield to the solicitations of the opposite sex and seductive allurements of dissipation, and find themselves in a short time the prey of disease. This applies equally to the married and unmarried--and so general is it that I believe I am correct when I estimate two in every three females, who have reached the age of fifteen, to be victims of this dissipation and fashionable life.¹

This insult to the women of California spread far and wide, and was a staggering blow to the struggling California State Medical Society. Cole, however, was exonerated of any evil intentions by the society in 1859, although it was granted that he had used loose and improper language.

Isaac Rowell, Professor of Chemistry, was a graduate of Dartmouth College, and came to California before it became a state in 1850. He was a vigorous opponent of slavery, and campaigned to make California a free state.²

Opposition to the new school.--In 1859, an attempt was made to obtain a state endowment for the medical school. As was usually the case at this time the legislators

¹Trask and Wooster, "Editor's Table," Pacific Medical and Surgical Journal, Vol. II (1859), pp. 27-28.

²John W. Shuman, California Medicine (A Review) (A. R. Elliott Publishing Company, 1930), p. 59.

frowned on giving financial help to any school of higher education; and so the bill failed.¹

The new school was roundly denounced in the *Pacific Medical and Surgical Journal* by the sardonical Editor Wooster who ranked Cooper as a charlatan. The following are a few quotes from his pen:

A Medical College was not yet needed here. There is no fund for the endowment of the College, and there are no students to attend the lectures, and there are no capable physicians who have the leisure and the philanthropy to deliver lectures gratis.

Under such auspices the profession will readily appreciate into what hands the different departments of medical teaching must fall. It is painful to us to make any mention of this institution, because we love California and wish to be able to speak proudly of all her institutions. But, at the same time, we are not willing that the profession abroad should be deceived in this matter. The profession here understand it. We shall say nothing of the personal character or morality of the professors, for we believe a very bad man can be a very good scholar. Two of the corps of professors are gentlemen of liberal education and unexceptional character, both professionally and morally, as far as we know, and students would profit by their teaching and example. Of two more we will say nothing. We have seen many worse men and more ignorant doctors.²

Wooster continued his attack on Dr. Cooper and his medical school as follows:

. . . . He instituted the college, he named the professors, and those he named were elected. This is

¹Henry Harris, *California's Medical Story* (San Francisco: J. W. Stacey Inc., 1932), p. 132.

²D. Wooster, "Editor's Table," *Pacific Medical and Surgical Journal*, Vol. II (1859), p. 496.

notorious in San Francisco; and it is also notorious, that not one of the professors is distinguished, either as a scholar or a physician. But still these men have power to confer degrees, to send forth graduates, who, by the oodes of ethics, can claim equality at the bedside, with those who would be excused, nay, not merely excused, but prohibited from professional association with the Professor of Surgery under whom they will graduate.

We hope our Atlantic brethren will not be deceived: the Pacific Medical College is now a legitimized sham--a legal humbug--a chartered advertising medium for the man, of whose advertisements we have spoken above. The College is in his infirmary, and all the "appurtenances thereunto belonging." We knew a quack reform. The temptation is too strong to be resisted after it has once been acted on. . . .

If this College is recognized in the medical brotherhood, under its present organization, it is idle to make distinctions between honorable physicians and quacks.

The abilities of the different professors is of little consequence, for they have only straw pupils.

We have written this notice of the origin of the Medical College of California, that it may stand as a historical record of the utter looseness of professional ethics in California in the year 1859.¹

Near the start of the first session, the agent of the Santa Clara College was afraid that his school might be stigmatized by a supposed connection with the medical school because the University of the Pacific was in the same town; so for some months he ran an advertisement in the San Francisco papers, stating that the "Medical Department of the University of the Pacific was in no way connected with Santa Clara College established by the Fathers

¹D. Wooster, "Editor's Table," "Pacific Medical and Surgical Journal," Vol. II (1859), pp. 497-498.

of the Society of Jesus." This arose, probably, from a misunderstanding of the real designs of the Faculty of the Medical School on the part of this agent and his friends.¹

Dr. H. H. Toland who was at odds with R. Beverly Cole, and who was not unfriendly to Wooster, being one of the principle contributors to the Pacific Medical and Surgical Journal, had been a staunch opponent of Cooper's medical school. He was now laying plans for one of his own. Cooper referred to these plans of Toland's in his San Francisco Medical Press as follows:

By the by, we learn that some of those who snubbed most industriously at the idea of a Medical College in California at first, are now talking of establishing a second one in this city. We hope they will. We always did like competition. It affords the finest stimulus to exertion, in the world.

Besides, no one can make a respectable teacher in a medical college, without being a hard worker, and the more active laborers we have in the field of medical science on this coast, the more the profession will be elevated. We feel as if we could become the very friends of those who would perform the labor, and make all the sacrifices necessary for sustaining another Medical College in this city, in spite of conflicting interest which might occur.²

However, Toland's school was not to materialize for several years yet.

¹E. S. Cooper, "Editor's Table," San Francisco Medical Press, April, 1861, p. 100.

²Ibid., April, 1860, p. 63.

The second session—May to September, 1860.—The original Faculty of Cooper, Cole, Rowell, Morison, Garman, and Barstow remained unchanged. Fifteen students were matriculated, and in September there was one graduate.¹

During this session the school was under attack both in regard to dissection and lack of a hospital in connection with their medical school. The attack in regard to dissection practices came by way of an evening newspaper which printed several articles such as the following:

Horrible Practices

We have been informed, on reliable authority, that the graves in the common lot, at Lone Mountain Cemetery, have been violated, and the dead bodies of those buried at the public expense, disinterred, for purposes of dissection! * * *. We are not aware of any existing law to stop this robbery of the tombs and mangling of the dead, to satisfy the greedy maw of Science, but there should be one. And where is the difference between the dead poor and the wealthy dead? Are the bodies of the one more the property of the surgeons than those of the other class? No one can feel sure, while such things are going on, that the bones of the most honored dead, or those of dearly loved kindred, are allowed to rest in peace. Chinamen are said to be the agents employed—and, like vultures, these body-snatchers watch daily for their human prey. This is a matter that should be looked into by the Police, so that the desecration of the graves may be held up to public execration. Malediction, say we, upon the disturbers of the buried dead!²

Cooper made no denial of using the bodies of the poor for dissection purposes. He did, however, comment

¹Ibid., October, 1860, p. 234.

²Ibid., pp. 239-240.

on the ignorance of editors who would print such articles even though they had not written them themselves. On inquiry Cooper had learned that a certain medical man, or "a graduate in medicine," as he put it, was the author of them. He wrote of this "graduate in medicine" in the following manner:

. . . . The medical profession of the world had had but one genuine professional Judas, and he chanced to turn up in San Francisco; so let us pass him round, and make the most of him. We will never have another. Such as his like has never been seen before.

Need we name the miscreant? Everybody knows who the medical Judas is. We intend never to let his name disgrace our pages again.¹

Only a few months previous to this Cooper had written that Wooster's name was synonymous with "Professional Traitor"; so there can be little doubt as to whom he was referring. Cooper was emphatic in stating that no attempt to break up dissecting practices in the Med-school would succeed. The Faculty would send all over the state for the bodies of hanged criminals or to the Indian reservations if necessary; even if each cadaver should cost five-hundred dollars.² (There was to be no law permitting the use of pauper bodies for that purpose until 1864.)

¹Ibid., pp. 240-241.

²Ibid., October, 1860, p. 242.

The Evening Bulletin had recently stated that the college doctors had no hospital under their control for clinical teaching. Cooper retaliated with the claim that the school did have a hospital under their control--the Pacific Infirmary (Cooper's eye, ear, and orthopedic clinic)--which afforded a better surgical clinic than could be established among all ten hospitals of the city, sustained by public expense. He then hit at the Board of Supervisors for refusing the college doctors' petition to take the medical supervision of the San Francisco City and County Hospital free of charge for the privilege of giving clinical instruction to their students. He said that medical men who make the sacrifice of time and money necessary to establish a medical college think little of the additional sacrifice of time required to attend the patients in a charity hospital, when the interest of the college would be enhanced by it, and they should have this privilege. The arrangement which the Board of Supervisors had made was that all clinical lectures would be delivered by the House Surgeon of the Hospital, but even the most learned man in the world could not adequately handle such a charge. The Faculty still advised their students to attend the House Surgeon's lectures, however, because of the immense number of important

cases which might be presented there. Cooper said of this:

Things must have a start, and let this method of obtaining clinical instruction, however unusual, be eagerly embraced by the students. A few years more will place these matters on a different footing. In the meantime, whatever is lost through corrupt politicians, in not affording the requisite encouragement to cultivate medicine on this coast, which it is their duty and is in their power to do, will be made up by the greater energy, determination and patient industry of the Faculty of the Medical College, who are as a unit in harmonious action, and who are resolved to give themselves no time for repose until all obstacles are surmounted, and the institution placed upon a basis which guarantees permanent and complete prosperity.¹

At this time Cooper spoke of the instruction in his medical school as being most rigid. He said that there was no medical school in the older states in which the examinations for graduation required a higher order of qualifications than that of the Medical Department of the University of the Pacific.²

By the end of the second session the prospects of the new medical school looked bright and Cooper spoke confidently of them:

Though the Faculty of the Medical Department of the University of the Pacific has met with a degree of unjust opposition, almost unparalleled in the history of new medical schools, probably none other ever complained or faltered less. Not two years have elapsed since the opening ceremonies were held, publicly inaugurating the school. Many spoke of it as a "magnificent humbug," gotten up by the self-created professors."

¹Ibid., October, 1860, pp. 237-239.

²Ibid., p. 236.

simply for the purpose of producing an excitement, for selfish ends only; but it is very different now. There is hardly an enemy of the school who would dare to risk his reputation as a man of sense, by stating that he does not believe it to be a permanent institution.¹

The University of the Pacific at Santa Clara.---An indication of the size of the University of the Pacific, of which Cooper's medical school was now a part, might be gained from the size of the faculty and the number of students in attendance. During the year 1859-60, there were six men on the Faculty, and a total of one-hundred and twelve students not counting those of the medical department. This institution was the first chartered University on the Pacific Coast, having been chartered in 1851.² It moved to San Jose in 1871, and from there to Stockton in 1921 where it is now known as the College of the Pacific.

The Medical Department starts its third session in November.---The first two sessions had been held during the summer months from May to September. However, for the purpose of uniformity with the other medical schools of the country, it was decided to begin the sessions in

¹Ibid., p. 337.

²Catalogue of the University of the Pacific, Santa Clara, California, 1859-60 (San Francisco: Towne and Bacon, 1860).

November and run through to March. They would again be preceded by a month of preliminary lectures with the exception of this, the third session, when they would be dispensed with because of its coming so close on the heels of the second session. All the students scheduled to graduate at the end of the second session except one had agreed to wait until the completion of the third session for their commencement. This accounts for the one graduate at the end of the second session.¹

Seventeen students were matriculated. The same original faculty still worked harmoniously and energetically for the interests of their students. There had not been a lecture omitted during the entire three sessions, which could be said of few or none of the older medical colleges of the United States during their infancy.²

During this third session Dr. Cooper wrote that the efforts by a few to create a furor over dissection practices had not succeeded, and that the material for dissection had been abundantly provided free of charge which was very unusual for the time.³

¹E. S. Cooper, "Editor's Table," The San Francisco Medical Press, October, 1860, p. 256.

²Ibid., April, 1861, p. 98.

³Ibid., January, 1861, p. 45.

At the commencement exercises held in Tucker's Hall, San Francisco, on March 14, 1861, five more graduates plus the one graduate of the second session formally received their degrees.¹ The exercises were written up in the local newspaper from which the following was extracted:

Soon after 3 o'clock the Trustees of the University, the Faculty, some clergymen, and the students of the Medical Department, walked in procession up the middle aisles, the students taking the front seats on either side, the rest disposing themselves on the platform.

A fine band in the eastern gallery played pleasantly as they entered, and seemed unwilling to cease for the more prosaic part of the exercises to commence.

Then Dr. Rowell announced that the "exercises" of the evening would be opened with prayer by the Rev. Dr. Peck. When Dr. Peck's brief, comprehensive prayer was ended, the band played again.

Then Dr. Rowell announced the ceremony of conferring the degrees. The graduating class, six in number, each wearing a white rosette on the left lapel, ascended the platform and faced the President of the University, Professor Edward Bannister, who, first rising, addressed a few words of Latin to the Trustees. Receiving a satisfactory reply from the Board, the President resumed his seat, and with great deliberation read, but in a voice too low for the audience to hear much, except the reference to the omnibus and the juribus, the magic words that construed the young gentlemen from pupils into full-grown Doctors of Medicine. To each a parchment diploma was handed, and bowing as they received them, they returned with applause to their seats.

After another strain of music, Dr. M. R. Chamberlin, a graduate of Jefferson Medical College, Philadelphia,

¹Minutes of the Board of Trustees of the University of the Pacific, March 14, 1861.

went up on the platform, was confronted with the same brief Latin harangue, and received his diploma as a graduate ad eundem of the Pacific University—greeted, as he descended, with applause.

Music again, and then Dr. R. Beverly Cole, Dean of the Faculty, addressed the graduates. His counsels were judicious and evidently highly appreciated by the class and the audience.

Rev. T. Starr King then delivered a highly entertaining and brilliant address, at the close of which the benediction was pronounced, and the large and intelligent audience retired highly gratified.¹

Cooper emphasizes quality and not quantity of graduates.—Many of the medical schools of this period were merely "diploma mills" turning out graduates who were not fully qualified to practice the art of medicine. That Cooper did not want his school to become one of the latter is shown in his writings during the third session of his school.

. . . . young gentlemen should be fully satisfied that they are well qualified before sending in their applications, because rejection will be frequent, if the candidates for graduation are no better qualified than many of those who graduate in the schools of the Atlantic States.

The Faculty of this School are resolved to "labor and wait" long for a large class, before they will graduate a single unqualified student.

. . . . students, expecting to graduate, must be prepared to pass successfully a most rigid examination, and, for this same reputation, the College had, even this early this early, lost students. But it is the design to make the standard of qualifications for a degree as high, if not higher, than that of any other Medical College in the United States.

¹E.S. Cooper, "Editor's Table," San Francisco Medical Press, April, 1861, pp. 98-99, citing the Christian Advocate, March 21, 1861.

They prefer having it said, that the Green Room of the Medical Department of the University of the Pacific is a terror to students, even if their class should forever remain small, than to have a crowd of students assembled for the purpose of procuring diplomas, cheap for cash.

This Faculty have done nothing for display. They have been led on by none of the troublesome infatuations that encumber the early efforts to establish many medical schools, the Faculties of which, at a premature period, make immense and unnecessary sacrifices for the purpose of erecting gorgeous buildings, to accommodate a dozen or twenty students.¹

Changes in the Faculty for the fourth session.--For

the first time since its origin, the Faculty now underwent some changes. Dr. B. R. Garman, Professor of Materia Medica, resigned because of poor health, and the eminent Dr. Henry Gibbons, a member of the Board of Trustees of the University of the Pacific since 1851, was elected to take his place. At this same time an addition to the Faculty was made in the person of the brilliant Dr. Levi Cooper Lane, Dr. Cooper's nephew. Dr. Lane, who had just returned from Europe, was elected to the Chair of Physiology which Cole had been holding down simultaneously with the Chair of Obstetrics and Diseases of Women and Children.^{2,3,4}

¹E. S. Cooper, "Editor's Table," San Francisco Medical Press, January, 1861, pp. 50-51.

²Ibid., July, 1861, p. 160.

³Ibid., pp. 160-161.

⁴Minutes of the Board of Trustees of the University of the Pacific, June 19, 1861.

The new Faculty now lined up as follows:

J. Morison, M.D.....Professor of Pathology and of
the Principles and Practice of
Medicine.
Isaac Rowell, M.D.....Professor of Chemistry.
R. Beverly Cole, M.D...Professor of Obstetrics and Dis-
eases of Women and Children.
L. C. Lane, M.D.....Professor of Physiology.
E. S. Cooper, M.D.....Professor of Anatomy and Surgery.
Henry Gibbons, M.D.....Professor of Materia-Medica.
Hon. Geo. Barstow,.....Professor of Medical Jurispru-
dence.¹

About the new Faculty members, Gibbons and Lane.--

Henry Gibbons was born in Wilmington, Delaware in the year 1808, and was the son of a physician. He graduated from the University of Pennsylvania's Medical School in 1829. For some years he was associated with his father in the practice of medicine in Wilmington, Delaware. While here he began his first essays as a popular lecturer. He delivered addresses upon scientific and moral topics in which his aim was to instruct and impart useful information about the effects of alcohol and narcotics on the body and mind. This training developed in him a gift for public speaking equalled by few. He was a strong believer in temperance for which he campaigned throughout his entire life. After fifteen years in Wilmington he moved to Philadelphia where he soon secured a large medical practice.

¹San Francisco Medical Press, July, 1861, p. 192.

In 1850 he came to California and set up his medical ^{practice} in San Francisco. Soon after his arrival an epidemic of cholera occurred, and he offered his services to a hospital which the authorities of San Francisco had extemporized to meet the emergency. He even resided in the hospital and personally cared for many of the victims which showed he was possessed of much courage since cholera was greatly feared at that time. Gibbons ably seconded Dr. Cooper in his work with the California State Medical Society, and was elected president of that body in 1857. In natural science Dr. Gibbons always had a strong liking for Botany and Meteorology.¹

Levi Cooper Lane was the oldest of nine children of Ira and Hannah (Cooper) Lane. He was born on a farm at West Elkton near Somerville, Ohio, May 9, 1828. His early education was chiefly in private, being taught mainly by his aunt, Ruth Cooper. At the age of sixteen he began teaching school in Butler County, Ohio, and continued in this occupation for three years.

He began his college training in the spring of 1847 by taking a six month's course at Farmer's College, New York. After a brief interval of time he then enrolled at Union College, Schenectady, New York. Union College gave

¹Levi C. Lane, Dr. Henry Gibbons, In Memoriam (San Francisco: Howard & Pariser, Printers and Publishers, 1885), pp. 4-16.

him the Master of Arts degree, and in 1877 conferred on him the honorary degree of Doctor of Laws.

Levi Cooper commenced his study of medicine by reading with his two uncles, Drs. Esaias and Elias Samuel Cooper, and later he entered Jefferson Medical College in Philadelphia, where he studied one year and graduated with his M.D. in March, 1851. In the same year he was appointed an interne in the large New York State Hospital on Ward's Island where he remained until 1855.

At this time he took a competitive examination with thirty-one others for the position of assistant surgeon in the United States navy. The feat he performed at this examination followed him down through his career. When taking the examination he was required to write a composition in English on an assigned topic in an allotted period of two hours. In thirty minutes he had finished the task, and while the other candidates were still laboring he amused himself by translating his composition into Latin, submitting both copies to the examining board. He was rated first place in this examination, and for the next four years he served as a Naval Surgeon. While on duty in the North Sea, he obtained a furlough and studied for two months at the University of Gottingen. He was thoroughly proficient in Latin and Greek, and he could

ably read and speak German, French, Spanish, and Italian.^{1,2,3}

In 1859, Dr. Lane visited San Francisco in the capacity of surgeon on a U.S. Sloop of War. At this time Dr. Cooper offered him a professorship in the Medical Department of the University of the Pacific. Dr. Lane accepted his uncle's invitation, and so he resigned from the Navy. Before taking up his new duties as a teacher, however, Dr. Lane decided to spend a few months in Europe in order to better prepare himself. At this time Dr. Cooper wrote about him as follows:

. . . . His intelligence, suavity of manners, and gentlemanly deportment, secured many friends among medical men in this city during his brief stay. Who could but be pleased at the accession to their ranks, of one so well calculated to work for the elevation of the profession.⁴

While in Europe Dr. Lane took a special course of vivisection with Rudolph Wagner, at the University of Göttingen. There he also took a Practical Course of Physiological and Toxicological Chemistry under the supervision

¹Emmet Rixford, Levi Cooper Lane, Reprint from Surgery, Gynecology and Obstetrics, Vol. LVI (Feb., 1933), pp. 248-250.

²In Memory of Levi Cooper Lane (San Francisco: Stanley-Taylor Company, 1902), pp. 18-21.

³Editorial, "Dr. Levi Cooper Lane," Pacific Medical Journal, March, 1902, p. 162.

⁴E. S. Cooper, "Editor's Table," San Francisco Medical Press, April, 1860, p. 49.

of Professors Boedeker and Woehler. In Paris, he visited the principal hospitals, attended a course on vivisection given by Flourens, and also a course of chemical lectures by Fremy and Chevreul.

Upon his return from Europe Dr. Lane was appointed Professor of Physiology in the Medical Department of the University of the Pacific.

The fourth session, November, 1861 to March, 1862.—

The preliminary course of lectures ran through October, and on the first Monday in November, 1861, the fourth session began with a daily attendance almost twice as large as ever before.¹ The fee due to each professor was now lowered from thirty dollars to twenty dollars. Clinical lectures were given on Wednesdays and Saturdays of each week on Practice of Medicine, Surgery, Special Pathological Anatomy, Physical Diagnosis, Auscultation and Percussion, and on Diseases of Women and Children.²

It became the custom, during these early sessions of the medical school, for the class to request the publication of some of the outstanding introductory lectures delivered by the professors, and many of these interesting documents are available today in the Lane Medical Library

¹Ibid., April, 1862, p. 108.

²Ibid., July, 1861, p. 192.

in San Francisco. They furnish proof of the high caliber of the lectures given to the students by these pioneer medical professors.

Early in 1862, the students of the Medical Department received wider access to clinical facilities with the opening of the new St. Mary's Hospital on the corner of Bryant and First Street in San Francisco. This hospital was originally begun in 1856 by the Sisters of Mercy, and was now under the charge of Dr. Lee, as Resident Physician, and Drs. Bowie, Toland, and Whitney as Visiting Physicians and Surgeons.^{1,2} It was Dr. J. P. Whitney who extended an invitation to the Medical Class to visit the Hospital on his visiting days of Tuesday, Thursday, and Saturday, and his reading room on the evenings of those same days. In the St. Mary's Hospital the class could observe and record cases, and listen to practical remarks on them by Dr. Whitney or his colleagues.³

Graduation exercises were held on March 13, 1862. There were five graduates, and Dr. Henry Gibbons delivered the commencement address.⁴ Dr. Whitney announced that he

¹Henry Harris, California's Medical Story (San Francisco: J. W. Stacey, Inc., 1932), p. 116.

²E. S. Cooper, "Editor's Table," San Francisco Medical Press, April, 1862, p. 87.

³Ibid., April, 1862, pp. 87-88.

⁴Ibid., p. 109.

would hold a summer course of Clinical Instruction commencing on the second Tuesday in June and running for three months.¹

Things certainly looked bright for the Medical Department of the University of the Pacific now, and its future progress and growth seemed to be a certainty.

Dr. Cooper is stricken.--Soon after coming to San Francisco, Dr. Cooper was attacked with an obscure nervous affliction which caused him to have a partial facial paralysis, neuralgic pains, and indigestion. He told his nephew, Dr. Lane, that he had not been entirely free from pain for several years past. It is remarkable that he could have labored and written so much in such a state of health. Toward the end of May, 1862, his neuralgic pains became unusually violent accompanied by much indigestion. At this time he became totally blind in the course of a few hours, and his loss of vision continued for almost a week. Seeking a warmer climate, he made two trips to the vicinity of San Jose with a seeming improvement, but each time he returned to San Francisco his condition rapidly became worse. Believing that the cold bleak winds of San Francisco aggravated his condition he planned a third trip to the northern

¹Ibid., p. 98.

part of the state where he would stay until completely recovered. Dr. Lane accompanied him on this trip. It soon became evident, however, that all was in vain, and Cooper asked that he might be brought back to San Francisco in order to be among his friends. Four days after his arrival he breathed his last. His death came on October 13, 1862, before he had reached his fortieth birthday.¹

Happenings subsequent to Dr. Cooper's illness and death.—In July, 1862, when Dr. Cooper had gone to the Valley of San Jose to recuperate, Dr. Lane took over the editorship of the San Francisco Medical Press, and the management of Dr. Cooper's Clinical Infirmary.²

On September 12, 1862, Professor J. Morison tendered his resignation from the Chair of Pathology and Principles and Practice of Medicine. Morison also resigned his membership from the Board of Trustees of the University of the Pacific to which he had been elected some time before. Dr. A. J. Bowie was elected to fill Dr. Morison's place on the Faculty.³ Dr. Bowie was originally from Baltimore, and had been connected with the

¹Levi C. Lane, "Editor's Table," San Francisco Medical Press, October, 1862, pp. 226-243.

²Ibid., p. 248.

³Minutes of the Board of Trustees of the University of the Pacific, September 12, 1862.

corps of Surgeons of the United States Navy for a long period before coming to San Francisco where he had since engaged in an extensive medical and surgical practice.¹ It is of interest to note that in 1859, Dr. Bowie, in association with Drs. Whitney and Stout, had established in San Francisco a General Medical and Surgical Dispensary. It was this dispensary that Cooper had called a "Medical Cheap John Shop" shortly after it opened, because it had offered its services "cheap for cash" to the poor people, and Cooper believed the motive to be money-making rather than benefiting the poor.²

In September, 1862, the Board of Trustees evidently still expected Cooper to recover, for he was elected to fill Dr. Morison's place on the Board of Trustees, having won it by a vote over R. Beverly Cole.³

Dr. James Murphy, a member of the last graduating class, was assigned a post in the Medical Department as Demonstrator of Anatomy.⁴ Dr. J. P. Whitney was elected

¹Henry Harris, California's Medical Story (San Francisco: J. W. Stacey, Inc., 1932), p. 176.

²E. S. Cooper, "Editor's Table," San Francisco Medical Press, January, 1860, pp. 52-53.

³Minutes of the Board of Trustees of the University of the Pacific, September 15, 1862.

⁴Levi C. Lane, "Editor's Table," San Francisco Medical Press, October, 1862, p. 247.

to the Professorship of Institutes of Medicine. The Faculty of the Medical Department of the University of the Pacific had now grown to eight members.¹

The fifth session.—In October, 1862, the month of Dr. Cooper's death, the usual Preliminary Course of Lectures was given, and the course proper began on the first Monday in November.² Twenty-two students were in attendance during this session. At Dr. Henry Gibbon's request some of the leading principles of Botany were to be added to the curriculum.

The loss of Dr. Cooper was a great one for the medical school. Dr. Lane said of it at this time:

. . . . In the death of Dr. Cooper, late Professor in the school, it has sustained a deep and heavy loss; that one could at once be found who could fully supply his loss, is more than we can expect,—still, by a division of the labors hitherto accomplished by him among the remaining members of the Faculty, every arrangement has been made so that the affairs of the School shall proceed without interruption, and the full course of lectures delivered as heretofore.³

Ample clinical facilities, which Cooper had fought for, and had predicted would become available to the school, were now being realized. The St. Mary's Hospital under the charge of the Sisters of Mercy had transferred its

¹Catalogue of the University of the Pacific, Santa Clara, California, 1862-63, p. 17.

²Levi C. Lane, "Editor's Table," San Francisco Medical Press, October, 1862, p. 247.

³Ibid., April, 1863, pp. 52-53.

medical and surgical supervision to the Faculty of the Medical School. Drs. Cole, Whitney, and Gibbons were to be the visiting surgeons from January to July; during the last half of the year Drs. Bowie, Rowell, and Lane were to be the attending physicians. These physicians could now exhibit and illustrate to the students any cases of interest which occurred in the Hospital. Besides the St. Mary's Hospital, the school now had access to the City and Marine Hospital. Dr. J. Hastings at the Marine Hospital had kindly offered to show, and clinically illustrate, once a week, any interesting cases occurring in the Hospital. Dr. F. A. Holman at the City Hospital also opened his ward to the class, exhibiting to them anything of pathological interest.¹ Also during this session, Dr. F. H. Howard delivered a series of lectures on Ophthalmic Surgery from studies and researches he had made while visiting Europe.²

The graduation exercises took place on March 12, 1863, with Dr. A. J. Bowie addressing the eight graduates. Among those receiving their degrees at this time were Henry Gibbons, Jr., Charles E. Holbrook, and John C. Kunkler. Gibbons was the son of Dr. Henry Gibbons, Sr., and was destined to be prominent in California medical education. Holbrook and Kunkler both passed the Army Medical Board,

¹Ibid., pp. 54-55.

²Ibid., p. 59.

and were commissioned as Assistant Surgeons in the United States Volunteer Service.¹

Once again the future of the Medical School looked bright. Dr. Lane spoke of it as follows:

... the Faculty have just grounds to be proud of what they have already achieved, and in contemplation of the future of the institution, they have every reason for cherishing even more exalted hopes than were entertained by its original founders at the commencement of their labors.²

Shifting of the Faculty.--Cooper's Chair of Anatomy and Surgery was now divided into two separate divisions, Anatomy and Surgery. Dr. Lane now took over the Anatomy, and Dr. J. P. Whitney replaced Lane in the Chair of Physiology. The Chair of Surgery was filled by Dr. A. J. Bowie, Dr. J. F. Morse, a distinguished medical scholar from Sacramento, replaced Bowie in the Chair of Principles and Practice of Medicine.^{3,4,5,6}

The sixth session of the Medical Department of the University of the Pacific.--This session began as usual on the first Monday in November, 1863, and there

¹Ibid., pp. 55-56.

²Ibid., p. 55.

³Ibid., pp. 53-54.

⁴Ibid., October, 1863, p. 124.

⁵Minutes of the Board of Trustees of the University of the Pacific, March 12, 1863.

⁶Ibid., December 15, 1863.

ceased at the time little indication that this school was soon to cease its activities for six years, when it was to be revived again by Dr. Lane. It is significant to note that little mention of the school's activities was made in its "mouthpiece" the San Francisco Medical Press during this session. In the January issue, which was to be the last one edited by Dr. Lane, Lane inserted the following interesting notice to medical students:

I propose, in April next, to take some two or three medical students, who will be furnished with lodging, text-books and tuition, at the rate of two hundred dollars per year;--in the pursuit of their studies, the anatomical preparations;--likewise during a part of the year, they will have the benefit of clinical instruction in practical Medicine and Surgery.

L. C. Lane, M.D.,
Professor of Anatomy.¹

There were seven graduates in the sixth annual commencement of the Medical Department of the University of the Pacific, which was held at Platt's Hall in San Francisco on March 18, 1864. At the graduation services Rev. M. Barstow, President of the University conferred the degrees, Dr. Lane gave the charge to the graduates, Professor Barstow delivered an oration in Latin, and the exercises closed with an address by John T. Doyle, Esq..²

¹L. C. Lane, "Notice to Medical Students," San Francisco Medical Press, January, 1864, p. 191.

²L. C. Lane, "Editor's Table," San Francisco Medical Press, April, 1864, p. 30.

Suspension of activities of the Medical Department of the University of the Pacific.—Soon after the last commencement, Dr. Henry Gibbons, Sr., now editor of the San Francisco Medical Press, announced in that journal that the Faculty of the Medical Department of the University of the Pacific had purchased a valuable piece of property on Stockton Street near Broadway, and were fitting it up for lecture rooms and other accommodations for their school in preparation for the beginning of the seventh session in November, 1864. He wrote of the school as being on a firm basis:

. . . . This institution has reason to be proud of its career and of its Alumni. In its origin and early life it encountered opposition and hostility from nearly every quarter. It has received no public favor and no extrinsic aid from any source. Its sole reliance has been the industry and perseverance of its founders and their successors. But these have borne it through triumphantly, and established it on a firm basis. Its graduates can be designated, almost without exception, as honorable and successful members of their profession. A large proportion of them hold positions in the public service, and are making a record creditable to themselves and to their Alma Mater. The course of instruction in this school is eminently practical. The students are drilled at the bedside in three extensive hospitals, where they have the benefit of the teaching and experience of a large number of the foremost physicians and surgeons in California.¹

It was at this time, when the toil of the Faculty had finally culminated in a successful Medical

¹Henry Gibbons, Sr., "Editor's Table," San Francisco Medical Press, July, 1864, pp. 80-81.

School, that a rival appeared. Dr. H. H. Toland, having amassed a fortune in his practice of medicine and surgery, now erected a commodious building on Stockton Street near Chestnut. It was conveniently situated opposite the San Francisco City and County Hospital which was then on Francisco Street at North Beach. Dr. Toland gathered a Faculty around him, and soon announced that instruction in his new Medical College was to begin on November 5, 1864. The Faculty of the Medical Department of the University of the Pacific must now either submit or engage in a competitive struggle with the new school. Dr. Cooper, had he been alive, probably would have done the latter, but the Faculty decided that the two schools could not be sustained with credit to each other. Rather than engage in a struggle which might involve personal animosities, and injure the character of the profession, and lower the standard of medical education and the value of the diploma, the Faculty decided to suspend operations. 1,2,3

¹Henry Gibbons, Sr., Introductory Lecture to the Eighth Session of the Medical Department of the University of the Pacific, July 5, 1870 (San Francisco: John H. Carmany & Co., 1870), pp. 8-9.

²Emmet Rixford, Levi Cooper Lane, M.D.—The Lane Popular Lectures, Reprint from California and Western Medicine, Vol. LXXVII (Dec., 1932) and Vol. LXXVIII (Jan., 1933), p. 8.

³Henry Gibbons, Sr., "Editor's Table," Pacific Medical and Surgical Journal, Apr 11, 1865, p. 52.

CHAPTER IV

THE PERIOD OF SUSPENSION

The formation of Toland Medical College.—In October, 1864, the Pacific Medical and Surgical Journal, now under the editorship of Drs. V. J. Fourageaud and J. F. Morse, devoted over two pages of editorial comment to Toland's Medical College, saying that Dr. H. H. Toland intended to donate the edifice he was now building to house his Medical College to the city of San Francisco, and acknowledging this act as "almost unparalleled real generosity and professional zeal." The editorial further stated that:

The building is nearly completed, a Board of Trustees selected, a Faculty of Medical Teachers organized, and a regular Course of Medical Instruction advertised for the coming winter.

. . . . The Faculty of this contemplated School have tendered gratuitous services in the City and County Hospital of San Francisco, for those privileges of clinical teaching which are enjoyed in every Eastern school. Will the authorities grant this small favor-- and will the people encourage an effort to thoroughly supply the Pacific Coast with the facilities of medical education? 1

When the announcement of the Faculty for the Toland Medical College first appeared it included the

1 V. J. Fourageaud and J. F. Morse, "Editor's Table," Pacific Medical and Surgical Journal, Vol. VII (1864), pp. 296-297.

following names:

- H. M. Toland, M.D., President
 Professor of Principles and Practice of Surgery.
 James Blake, M.D.,
 Professor of Obstetrics and Diseases of Women and
 Children.
 J. Newton Brown, M.D.,
 Professor of Anatomy.
 T. J. Edwards, M.D.,
 Professor of Institutes of Medicine.
 W. O. Ayer, M.D.,
 Professor of the Theory and Practice of Medicine.
 J. F. Morse, M.D.,
 Professor of Clinical Medicine and Diagnosis.
 Thomas Bennet, M.D.,
 Professor of General Pathology.
 J. A. Lockwood, M.D.,
 Professor of Materia Medica.
 Robert Oxland, M.D.,
 Professor of Chemistry.
 William A. Douglass, M.D.,
 Demonstrator of Anatomy.¹

Dr. J. F. Morse was the only Professor of the Medical Department of the University of the Pacific on the new Faculty. It was not long, however, before the students of the old school, now continuing their studies in the Toland Medical College, petitioned the Faculty to invite Drs. Lane and Gibbons, Sr., to join the staff of the new school. Dr. R. Beverly Cole, who was now in Europe, was not invited because he was out of favor with Dr. Toland. Dr. Lane became Professor of Physiology, replacing Edwards, and Dr. Gibbons replaced Lockwood as Professor of Materia Medica. Washington O. Ayer was

¹Henry Harris, California's Medical Story (San Francisco: J. W. Stacey, Inc., 1932), p. 135.

selected as dean of the new school.^{1,2}

Drs. Lane and Gibbons, Sr., had accepted the invitation to join the new Faculty with the reservation that the graduates of the Medical Department of the University of the Pacific should have the ad eundem degree from Toland Medical College free of charge, if they so desired. However, only one of the graduates of the old school ever accepted this offer, which was an indication of the high regard they held for the training they received in the former school.³

The Board of Trustees of the Toland Medical College consisted of twenty-six members including many very prominent persons such as Ex-Governor P. H. Burnett, Ex-Governor John G. Downey, Lt. Governor T. M. Machin, and Drs. J. P. Whitney and C. Badarous.⁴

The Charter for the new medical school conferred on it all the privileges and powers of any University.

¹Ibid., p. 135.

²Samuel Rixford, "History of the Cooper Medical College," Address at the Dedication of the Lane Medical Library (Stanford: Stanford University Press, 1912), p. 11.

³Henry Gibbons, Sr., Introductory Lecture to the Eighth Session of the Medical Department of the University of the Pacific, July 5, 1870 (San Francisco: John H. Carmany & Co., 1870), p. 9.

⁴"Toland Medical College," Pacific Medical and Surgical Journal and Medical Press, Vol. VIII (1865), p. 162.

Immediately after receiving it, Dr. Toland executed a deed of conveyance of the entire property to the Trustees for the establishment of an independent school of Medicine.¹

That Dr. Toland wished for municipal and state support for his school is made clear by two paragraphs from his Introductory Lecture at the opening ceremonies of the school.

More is necessary than the erection of a building, the appointment of Trustees and Professors, to insure success. By referring to the compend which I have presented of the History of Surgery, it will become apparent to all, that devotion and intellect availed nothing, so long as they were opposed by the populace and the authorities of the Government.

If this College, which has been established at immense expense, ever becomes worthy of the great State of California, it will be accomplished by the untiring industry and perseverance of the Professors, aided by the fostering care and protection of the authorities of this city as well as the rulers of the State. They have now presented to them the privilege of sharing the disgrace of seeing this Institution languish for the want of their protection, or the credit of enabling it to spring into usefulness, and become an ornament to the city and an honor to the State.²

Backing from the San Francisco Board of Supervisors was not immediately forthcoming, however, for it seems that some of the members of this Board, including two prominent physicians, were hostile to Toland. The Toland Faculty wanted access to the City and County Hospital of San Francisco to provide clinical facilities for their students,

¹The Toland College, "Pacific Medical and Surgical Journal, Vol. VII (1864), p. 373.

²Professor Toland's Introductory, "Pacific Medical and Surgical Journal, Vol. VII (1864), p. 322.

and the Board of Supervisors, for some time, refused to act on their request. At their first meeting the Toland Faculty voted a subsidy to the Pacific Medical and Surgical Journal in order to have a "mouthpiece" for their new school.¹ In the editorials of this journal a persistent appeal began for pressure to be brought on the Supervisors to grant the facilities asked for. The nature of this appeal is seen from the following extracts from these editorials:

Is there any reason why Medical Students should be driven to Eastern Schools of Medicine, while we have such a Metropolis as San Francisco, with its exhaustless supply of clinical elements, and such a wonderfully excellent climate for the prosecution of medical studies.

Will the Supervisors of San Francisco grant the facility which is tendered from every hospital in the Eastern cities, to similar educational efforts?

Will the Supervisors grant this small encouragement to an effort to build up a medical school which shall be of great benefit to the city and the medical profession?²

The appeal continued as follows:

A MONTH has now elapsed since a Medical College was opened in this city under circumstances which gave at once a guaranty of permanence and credit.

At the commencement, the Medical Faculty of the institution made a proposition to the Board of Supervisors to take the medical and surgical management of

¹Henry Harris, California's Medical Story (San Francisco: J. W. Stacey, Inc., 1932), p. 137.

²J. F. Morse, "Editor's Table," Pacific Medical and Surgical Journal, Vol. VII (1864), pp. 324-325.

the City and County Hospital, and to furnish an unexceptional resident physician and apothecary, without one cent of cost to the City, for the mere privilege of allowing medical students to see the practice of medicine and surgery, as they are permitted to do in every hospital of Eastern cities, where such schools are located.

The Faculty offered to give any bond which might be required of them for the faithful performance of their duty.

The petition was received by the Supervisors, and referred to a committee, where it is as effectually dead as if burned to ashes.¹

We do not think the Supervisors have exhibited their usual sagacity in rejecting an offer which, without any conceivable risk, would have saved so much money—nor do we believe that their record in this particular will be any special benefit to them when making up their claims for continuance in office.²

The First Commencement of Toland Medical College.—

On March 8, 1865, Dr. Toland delivered the Valedictory Address at the close of the first session of the Toland Medical College, saying that the only thing he regretted was that the city authorities had not yet seen fit to render the facilities of the local hospital to the school and that this was because he had excluded certain Doctors from the Faculty. Toland also appealed to the eight graduates to donate books or money to their Alma Mater in proportion to their ability as their professional efforts were crowned with success.^{3,4}

¹Ibid., p. 354.

²Ibid., pp. 374-375.

³H. H. Toland, "Valedictory Address," Pacific Medical and Surgical Journal and Medical Press, Vol. VIII (April, 1865), pp. 21-26.

⁴W. C. Jones, Illustrated History of the University of California (San Francisco: F. H. Dukesmith, 1895), p. 251.

The period from 1865 to 1870.--The second session commenced in August, 1865, and it was announced that the term would begin in June hereafter. This was because the cool San Francisco climate during the summer months made dissection unobjectionable during this season.¹ It was during this second session that the Toland Medical College finally gained access to the City and County Hospital for clinical teaching. Things were running quite smoothly for the new school now with the exception of the fact that the Faculty members were aligned into two opposing groups. At the end of the second session Professors Brown, Orland, and Ayre resigned, and Dr. Thomas Price was elected to the Chair of Chemistry.² In situations arising where a Faculty vote was taken to settle the matter, Drs. Lane, Gibbons, Sr., and Morse, all of whom had been connected with the Medical Department of the University of the Pacific, were frequently outvoted by the other members. In 1867, Dr. Lane wanted the deanship of the school, but due to this alignment of the Faculty he was defeated by Thomas Bennett, Professor of General Pathology.³ In 1869, Dr. J. F. Morse was compelled to leave his post because of ill health, and Lane and Gibbons, Sr., lost a cherished associate.

¹H. Gibbons, Sr., "Editor's Table," Pacific Medical and Surgical Journal and Medical Press, Vol. VIII (April, 1865), p. 35.

²W. C. Jones, Illustrated History of the University of California, (San Francisco: F. H. Dukessmith, 1895), p. 252.

³Henry Harris, California's Medical Story, (San Francisco: J. W. Stacey, Inc., 1932), p. 135.

At the close of the session of 1869 Dr. Lane delivered the Valedictory Address to the graduating class, and thus ended his connection with the Toland College. Together with Drs. Gibbons, Sr., Price, and Morse, he resigned early in the year 1870 with the intention of reorganizing the Medical Department of the University of the Pacific.¹

¹J. D. B. Stillman and W. F. McNutt, "Editorial," California Medical Gazette, Vol. II (June, 1870), p. 220.

CHAPTER V

REVIVAL OF THE MEDICAL DEPARTMENT OF THE UNIVERSITY OF
THE PACIFIC

Drs. Levi Cooper Lane, Henry Gibbons, Sr., and Thomas Price had resigned from the Toland Faculty because of a general dissatisfaction with the policies of Dr. Toland and the other Faculty members. Dr. J. F. Morse, who was in Europe recuperating from his illness, had sent his letter of resignation from there.¹

Drs. Lane and Gibbons, Sr., still retained in their hearts a love for Cooper's old school, and had a strong desire to see it flourish once again. They immediately set about the task of reorganizing the Medical Department of the University of the Pacific with the aid of all of the other Doctors who had been on the old Faculty at the time of suspension, and with the cooperation of the Board of Trustees of the University of the Pacific. These other Doctors included Isaac Rowell, A. J. Bowie, J. P. Whitney, and R. Beverly Cole.^{2,3}

¹Henry Harris, California's Medical Story (San Francisco: J. W. Stacey, Inc., 1932), p. 376.

²W. F. Smith, Valedictory, Eighth Annual Commencement, Medical Department of the University of the Pacific (San Francisco: Printed by Hiester & Brown, 1870), p. 5.

³H. Gibbons, Sr., Introductory Lecture, Eighth Session of the Medical Department of the University of the Pacific (San Francisco: John H. Carmany & Co., 1870), p. 15.

The regular course of lectures was scheduled to begin on the 5th of July, 1870, in the Chapel of the University (City) College on Stockton Street near Geary, a Presbyterian school. This old building is still standing at University Mound, south of Islais Creek, San Francisco. For the support rendered to the revived medical school by both the University of the Pacific and the University (City) College the medical Faculty offered free tuition to two students each year from each of these institutions to fit them for duties as medical missionaries.^{1,2}

The tentative Faculty for the opening session was announced as follows:

- A. J. Bowie, M.D., Emeritus Professor of Surgery, and President of the Faculty.
- J. F. Morse, M.D., Emeritus Professor of the Principles and Practice of Medicine.
- J. F. Whitney, M.D., Emeritus Professor of Physiology.
- Henry Gibbons, Sr., M.D., Professor of the Principles and Practice of Medicine, and Clinical Medicine.
- L. C. Lane, M.D., Professor of Surgery and Surgical Anatomy, and Clinical Surgery.
- Edwin Bentley, M.D., Professor of Descriptive and Microscopic Anatomy and Pathology.
- R. Beverly Cole, M.D., Professor of Obstetrics and Diseases of Women.
- Isaac Rowell, M.D., Professor of Diseases of Genito-Urinary Organs, and Orthopedic Surgery.
- C. W. Ellinwood, M.D., Professor of Physiology.

¹H. Gibbons, Sr., and H. Gibbons, Jr., "Editorial," Pacific Medical and Surgical Journal, Vol. IV (July, 1870), p. 80.

²Emmet Rixford, Levi Cooper Lane, M.D.--The Lane Popular Lectures, pp. 9-10. Reprinted from California and Western Medicine, Vol. XXXVII (December, 1932), Vol. XXXVIII (January, 1933).

W. F. Smith, M.D., Professor of Ophthalmology and
Otology.

Thomas Price, M.D., Professor of Chemistry and
Toxicology.

Henry Gibbons, Jr., M.D., Professor of Materia Medica
and Therapeutics, and Dean.¹

There were many people in San Francisco, at this
time, who thought it better that there be only one strong
medical school in their city rather than two weak ones.
Drs. Stillman and McNutt were among these, and they printed
an editorial in their California Medical Gazette which
contained the following advice to the medical students:

. . . we hope the students will have the good sense
to carefully investigate the merits of the quarrel in
the Faculty, and support by their united presence the
gentlemen whom they consider in the right. If the
students make the great mistake to divide, they will
but prolong a struggle productive of no good, and
which must sooner or later, end in the suspension of
one school. We earnestly urge the students to support
unanimously, one or the other of the schools.²

Although Stillman and McNutt were in favor of the
Toland Medical College as was brought out by more editorial
comment which followed in close succession to the above, the
students decided on the Medical Department of the University
of the Pacific, and all but one of them followed Lane,
Gibbons, Sr., and Price into the revived school.³

¹Announcement of the Medical Department of the
University of the Pacific, Session of 1859 (San Francisco:
Towns and Bacon, 1859), pp. 1-15.

²J. D. B. Stillman and W. F. McNutt, "Editorial,"
California Medical Gazette, Vol. II (June, 1870), p. 220.

³E. Rixford, "History of Cooper Medical College,"
Addresses at the Dedication of the Lane Medical Library
(Stanford: Stanford University Press, 1912), p. 11.

Dr. Toland reorganizes his Faculty.—To fill the gap in his ranks created by the resignation of Lane, Gibbons, Sr., Price, and Morse, Dr. Toland secured four additions to his Faculty. One of these was John Le Conte of the University of California, who had been acting as President of that institution during the previous year.^{1,2} It was in this spring of 1870 that Dr. Toland was also looking for a dean for his school. He could think of no abler man than his old enemy, Dr. R. Beverly Cole; so with his pride in his pocket he broached the subject to Cole so gracefully that the surprised and flattered Doctor accepted immediately even though he was obligated to teach in the Medical Department of the University of the Pacific during the following year.³

Negotiations between Toland Medical College and the University of California.—It was at this time that the first discussion arose about the possibility of affiliating the Toland Medical College with the State Uni-

¹W. C. Jones, Illustrated History of the University of California (San Francisco: F. H. Dukessmith, 1895), p. 252.

²Ibid., p. 48.

³F. T. Gardner, King Cole of California p. 340. Reprinted from the Third Series of the Annals of Medical History (New York: Paul B. Hoeber, Inc.) Vol. II, No. 3, pp. 245-258; Vol. II, No. 4, pp. 319-347; Vol. II, No. 5, pp. 432-442. (No publication date given.)

versity. On June 8, 1870, the Board of Regents of the University received a communication from Dr. Cole, now dean, expressing the desire of the Faculty that the College be affiliated with the University.¹ This move was noted in the minutes of the Toland Faculty as follows:

The dean was instructed to petition the Regents of the University of California to receive the Faculty of the School of Toland Medical College by affiliation as the Medical Department of the State University and to offer a conveyance by deed from the faculty of their land, college and its appurtenances to the Regents on behalf of the State University.²

The Executive Committee of the Regents, through its chairman, W. C. Ralston, recommended that the property offered by the Faculty of the College be accepted under the conditions outlined by a series of resolutions decided by the Regents. These resolutions were presented at a meeting of the Executive Committee on July 19, 1870. One of them was objectionable to Dr. Toland. It read as follows:

Resolved, That said College shall hereafter be known and designated as "The Medical Department of the University of California."³

Dr. Toland wanted it to be called the Toland Medical Department.

¹W. C. Jones, Illustrated History of the University of California (San Francisco: F. H. Dukessmith, 1895), p. 253.

²Minutes of the Toland Faculty, quoted by Henry Harris, California's Medical Story (San Francisco: J. W. Stacey, Inc., 1932), p. 136.

³J. D. B. Stillman and W. F. McNutt, "Editorial," California Medical Gazette, Vol. II (August, 1870), p. 257. Quoting Resolutions of the Executive Committee of the Board of Regents of the University of California.

Most of the Faculty of the revived Medical Department of the University of the Pacific, including Drs. Lane and Gibbons, were opposed to this affiliation between the State University and Toland Medical College. Instead, they wanted the University to be impartial and set up a Board of Medical Examiners which would examine the students from both the Medical Department of the University of the Pacific and the Toland Medical College. This would make the requirements the same for both schools. To this effect they sent a petition to the Executive Committee of the Regents which read as follows:

To the President and Board of Regents of the University of California--The Faculty of the Medical Department of the University of the Pacific beg leave to submit to your consideration the following statements and suggestions in regard to medical degrees and medical education in the State of California:

The facility with which degrees are obtained in many American medical colleges has lowered the standard of education in medicine and much impaired the value of a diploma as a criterion of professional qualification. For a number of years the earnest educators of our country have labored to correct the evil so that a diploma shall be what it proposes. But in the old States, where the schools have been long established, it is almost impossible to effect any radical change in this respect; nor is it at all probable that such improvement will take place so long as each school has the power of conferring degrees on its pupils. We believe an opportunity is now offered, through the University of California, to make a thorough reform on this coast, by providing that all medical degrees shall issue from one common source, under the authority of the University.

We, therefore, propose that the University shall take such a position as will enable it to control this entire question. It may not be practicable to carry

out the movement at once. But such steps may be taken as shall finally lead to the establishment of an Examining Board, independent of all medical schools, through which all candidates for graduation, from whatever school, shall receive the diploma of the Medical Department of the University of California.

This is the system in operation in the University of London, which is not connected with any educational institution, but which stands as an independent and impartial body, examining candidates from the several medical schools of London and elsewhere, and granting diplomas which are universally acknowledged to be an evidence of thorough professional attainments. So satisfactory has been the working of this system that an organized effort is now on foot to place all the medical schools of Great Britain under one common head in this respect, and thus to establish a uniform basis of medical education for the whole kingdom. If this could be done for America, it would be a rich blessing, both to the profession and the community. It is in the power of the University of California to take the initiative in the movement, and not only to confer a signal benefit at home, but to set an example which cannot fail to extend its happy influence to other States of the Union.

There may arise some difficulties in carrying out the proposed plan. But the same may be said of all progressive and reformatory movements. If the Board of Regents should see no way for present action, they can, at least, refrain from any step which will tie their hands and restrain their freedom in the future.

We take the liberty of suggesting to the Board of Regents, that the adoption by them of the Toland College as the exclusive Medical Department of the University, would not only debar them from hereafter taking an independent position on this question, but would be an act of manifest unfairness and injustice toward the Medical Department of the University of the Pacific. This is the oldest medical school in California, organized in 1858, under a charter from the first University ever established on the Pacific coast. It struggled through adversity and opposition, and by the unpaid labor of years, proved itself worthy of the success which finally crowned its efforts. At this juncture the Toland College stepped in to reap the harvest planted by its predecessor. The Faculty of the old school felt that their services in the cause of medical education, and their claims on the profession and on the public,

ought not to be thus ignored by their conferees. But rather than exhibit to the world the picture of two schools contending for patronage not sufficient to compensate one, and dividing and distracting the profession in California and still further debasing--it might be--the standard of education, they determined to avoid contention by suspending operations. Most of them, on invitation, attached themselves to the Toland school, and gave it an honest and hearty support. After several years of trial, for reasons to them satisfactory and cogent, they have withdrawn and re-organized the Medical Department of the University of the Pacific. This re-organization has been effected by the old and well tried teachers, and with all the equipments necessary for a complete course of medical instruction, and such as are not possessed by any other school on this coast. Their present class comprises a large majority of the students. They feel that they enjoy the confidence of the profession and of the community. They do not, however, for these or any other reasons, claim indorsement or support from the University of California. But they may certainly protest against the University, as an independent and impartial body, representing the entire State, and supposed to act with a single eye to the promotion of every educational enterprise, giving its name and patronage exclusively to a rival institution, and making itself a party adverse to the pioneers in an important department of education.¹

In partial response to the above appeal the University of California appointed a Board of Fifteen Examiners such as had been requested by the members of the Faculty of the University of the Pacific's Medical Department. However, six of the members selected for this Board were on the Toland Faculty, and not one member was chosen from the Faculty of the Medical Department of the University of the Pacific. It seemed so unjust that most of the appointees

¹J. D. B. Stillman and W. F. McNutt, "Editorial," California Medical Gazette, Vol. II (August, 1870), pp. 257-258. Quoting a Communication from the Medical Department of the University of the Pacific.

outside of the Toland Faculty declined to serve, leaving the examinations to be virtually conducted and controlled by the Toland Faculty.

At the end of the summer and fall of 1870 this Board of Examiners granted Degrees to the Toland graduates under the auspices of the University of California; thus, seemingly, the Medical Department of the University of California was fully inaugurated. At this time, however, the discovery was made that Toland's building and property had not yet been deeded to the University of California, and the transfer of it had been an essential condition of the affiliation. Dr. Toland had persuaded his Board of Trustees not to deed over the property because the Board of Regents continued to refuse to grant his one request that the medical college should continue to bear his name.

At this juncture, Toland withdrew from the University of California, and some of his Faculty members followed him. This left the University of California's Medical Department with the remnants of a Faculty and nothing more. Toland now set about reorganizing his Faculty, and thus it looked for a while that there would be three medical schools in close vicinity in the San Francisco area during 1871.¹

¹H. Gibbons, Sr., and H. Gibbons, Jr., "Three Medical Schools in San Francisco—The University of California," Pacific Medical and Surgical Journal, Vol. IV (Feb., 1871), pp. 403-406.

However, California University's Medical Department suspended operations while Toland started up his own Medical College once again.

The Medical Department of the University of the Pacific.--In the meantime, the revived Medical Department of the University of the Pacific had started its first session on July 5, 1870, as scheduled.

Dr. Henry Gibbons, Jr., was chosen as dean, a position which he was to hold until his death forty years later. The revived school boasted of an extensive and completely equipped chemical laboratory which was used to illustrate the chemical lectures, and give them practical application. It was located in a building next to the University (City) College, and was under the charge of Professor Thomas Price. Also available for the students was the largest collection of plates and models on the Pacific coast, and these were valuable supplements to the lectures. The course of lectures was now prolonged from four to five months with a vacation of two weeks scheduled for August. Two new chairs were formed for departments of special importance on the Pacific coast. One was the chair of Ophthalmology and Otology dealing with diseases of the eye and ear. The other was on diseases of the Genito-Urinary Organs, to be taught by Dr. Isaac Rowell.

The St. Mary's Hospital was available for clinical facilities, and a Public Dispensary was established in connection with the medical school. The latter afforded much extra material for clinical instruction. A number of druggists generously offered to furnish the medicines for this purpose; thus giving the students an opportunity to inspect and handle the medicinal agents, and to exercise themselves in the art of Pharmacy.

The student fees for attending the medical school at this time included the following: \$130 for one full course of lectures, \$5 for matriculation, \$40 for graduation, and \$10 for a demonstrator's ticket.^{1,2}

Twenty-three students were matriculated during this session, and in November, 1870, there were three graduates plus five Doctors who received the ad eundem degree.

It was at the end of this session ^{that} the Dr. R. Beverly Cole, who was also dean of Toland's school, abandoned the Medical Department of the University of the Pacific completely, and went to the aid of Toland who was in the midst of reorganizing his Faculty after the unsuccessful affiliation with the University of

¹ H. Gibbons, Sr., Introductory Lecture of the Medical Department of the University of the Pacific (San Francisco: John H. Carmany, 1870), pp. 9-10.

² Ibid., p. 15.

California. Dr. W. F. Smith also resigned at this time, and joined Toland's new Faculty.

The competitive session of 1871.—By the summer of 1871, both the Toland and the Pacific medical schools were ready for a competitive term, with the lectures of both schools conforming with each other in regard to time, duration, and terms. The Faculty of the Medical Department of the University of the Pacific was now without the services of Cooper's old friend, Dr. Isaac Rowell. He had died on January 4, 1871, soon after his son, Chester Rowell, had received his M.D. degree from the school his father had helped to found.¹

In November, 1871, both schools held their commencement exercises with an interval of only two days between the two. The Medical Department of the University of the Pacific had five graduates plus three ad eundem graduates as compared to three graduates for the Toland Medical College.²

Change of name of the Medical Department of the University of the Pacific.—Before the start of the session of 1872, the Faculty of the Medical Department of the University of the Pacific severed their connection

¹H. Gibbons, Sr., and H. Gibbons, Jr., "Editorial," Pacific Medical and Surgical Journal, Jan., 1871, p. 375.

²Ibid., Dec. 1871, pp. 306-307.

with the University of the Pacific. This was done with the consent of that University, and under friendly terms. At this time they became the Medical Department of the University (City) College which had been established in San Francisco in 1860. The Faculty now called themselves the Medical College of the Pacific. The reason for this change was to enable the Faculty to have permanent use of the building of the University (City) College for their medical school, and at the same time to obtain the degree granting power of the College.¹

During the session of 1872, the Medical College of the Pacific obtained access to the San Francisco City and County Hospital which now contained over four-hundred beds.

The principal branches of medicine now taught in the Medical College of the Pacific were listed as follows:

Principles and Practice of Medicine; Clinical Medicine and Diagnosis; Histology and Diseases of the Nervous System; Surgery; Surgical Anatomy; Clinical and Operative Surgery; Descriptive and Microscopical Anatomy; Pathology (with practical illustrations); Obstetrics; Diseases of Women and of Children; Theoretical and Practical Physiology; Ophthalmology; Otology; Clinical Ophthalmology and Otology; Inorganic and Organic Chemistry; Analytical Chemistry; Toxicology; Materia Medica; Therapeutics; Hygiene and Insanity; Physical Diagnosis (Auscultation, Percussion, & c.).²

¹Annual Announcement of the Medical College of the Pacific, being the Medical Department of the University (City) College (San Francisco: J. F. Brown, 1872), pp. 1-14.

²Ibid., p. 11.

It was during the session of 1872 that Professor Bentley, wishing for a substance on which to lay the cadaver during dissections that would not stain, absorb, or corrode like wood, zinc, or marble, obtained for the Medical College of the Pacific some slabs of thick glass with which to cover the tables. It was noted that this added greatly to neatness and cleanliness.¹

It is of interest that the Faculty had established, in 1870, a prize which consisted of a free scholarship for one course of lectures for that first year student passing the best examination at the end of the term.²

At the end of the session of 1870, the Faculty had instituted an intermediate course of lectures and clinical instruction which ran from January to May in 1871. This extra course was so successful that it was made a permanent part of the medical training program of the Medical College of the Pacific. These intermediate course were optional and free of charge for the students.³

In January, 1873, it was announced that Dr. Adolph Barkan had been elected Professor of Ophthalmology and Otology in the Medical College of the Pacific. Dr. Barkan

¹H. Gibbons, Sr., and H. Gibbons, Jr., "Editorial," Pacific Medical and Surgical Journal, Vol. XV (July, 1872), pp. 97-98.

²Annual Announcement of the Medical College of the Pacific being the Medical Department of the University (City) College (San Francisco: J. F. Brown, 1872), pp. 1-14.

³H. Gibbons, Sr., and H. Gibbons, Jr., "Editorial," Pacific Medical and Surgical Journal, Vol. XIII (Dec., 1871), p. 306.

had been educated under the most eminent European Oculists, having been a pupil of the celebrated Jager.¹

Negotiations reopened between Toland Medical College and the University of California.—In 1872, negotiations between the Toland Medical College and the University of California began again with Dr. R. Beverly Cole acting as the main intermediary and soother of ruffled feelings. By 1873, Cole had convinced Toland that his fame would live on even if the University of California's Medical Department did not bear his name, and besides, Daniel Coit Gilman, the new President of the University of California, suggested the compromise of naming the chair of Surgery after Dr. Toland, and calling the medical building Toland Hall. This arrangement was pleasing to Dr. Toland, and the affiliation was completed on April 1, 1873.^{2,3}

The Regents of the University of California now had a medical department, and they immediately organized a Faculty and a Board of Examiners. Their appointed Faculty consisted mainly of the professors of the two rival schools, with a view to their union under one "government". It was

¹Ibid., Vol. XV (Jan., 1873), p. 408.

²F. T. Gardner, King Cole of California, p. 341. Reprinted from the Third Series of the Annals of Medical History (New York: Paul B. Hoeber, Inc.), Vol. II, No. 3, pp. 245-258; Vol. II, No. 4, pp. 319-347; Vol. II, No. 5, pp. 432-442. (No date of publication given.)

³W. C. Jones, Illustrated History of the University of California, (San Francisco: F. H. Dukessmith, 1895), p. 253.

announced as follows:

- H. H. Toland, Professor of Clinical Surgery.
 R. Beverly Cole, Professor of Obstetrics and Clinical Diseases of Women.
 Henry Gibbons, Jr., Professor of Materia Medica and Pharmacy.
 C. T. Deane, Professor of Diseases of Women and Children.
 M. Bates, Professor of Clinical Medicine.
 W. T. Bradbury, Professor of Therapeutics.
 W. Bentley, Professor of Pathology.
 A. A. O'Neill, Professor of Anatomy.
 George Hewston, Professor of Theory and Practice of Medicine.
 H. Gibbons, Sr., Professor of Medical Jurisprudence, and Mental Diseases.
 Adolph Barkan, Professor of Ophthalmology and Otology.
 Thomas Price, Professor of Chemistry and Toxicology.
 M. W. Fish, Professor of Physiology.
 C. B. Brigham, Professor of Orthopedic Surgery.¹

The design of this movement to consolidate the medical schools was a good one, but in the appointment of Drs. Gibbons, Sr., Gibbons, Jr., Bentley, Barkan, and Price, all of whom were Professors in the Medical College of the Pacific, and in the public announcement of the appointments, the Regents unwittingly lent themselves to a trick unworthy of a dignified institution of learning such as the University of California. Those professors had been approached on the subject, previous to their appointment, and had positively declined the proposed coalition, because, among other reasons, it would have required them to abandon a flourishing school which they

¹Ibid., pp. 254-255.

had built up with much labor and care. They had a well-
tried and harmonious Faculty of experienced teachers, a
large and growing class of students, a desirable central
location, all the proper anatomical and clinical facili-
ties, and a liberal foster-parent in the University (City)
College. Under these circumstances they were not inclined
to abandon a certainty for an experiment.

The Regents of the University of California chose
their Board of Examiners from without the Faculty, and
this Board was to confine its duties to the examination
of such candidates as were recommended for graduation by
the Faculty.

As the situation now stood, there would continue
to be two medical schools; one bearing the name of the
State University, and without the power of conferring
degrees, the other, the Medical College of the Pacific,
not only having the power, but possessing, in common
with its competitor, the privilege of recommending its
candidates for graduation to the Board of Examiners of
the State University.¹

Concerning this refusal of the Faculty of the
Medical College of the Pacific to join the Medical De-
partment of the University of California, President

¹H. Gibbons, Sr., and H. Gibbons, Jr., "Editorial,"
Pacific Medical and Surgical Journal, Vol. XV (April, 1873),
pp. 550-551.

Daniel Coit Gilman made the following statement in his address at the opening of the Medical Department of the University of California:

. . . . The hour has not yet come when such a union can be brought about, and a portion of those thus asked to join in the Faculty have seen it to be their duty and privilege to remain in other connections.¹

Thus in 1873 was to begin a competitive struggle, often friendly, but sometimes hostile, between the Medical Department of the University of California and the Medical College of the Pacific and its successors.

Anti-quackery legislation introduced into California at this time.--At a meeting of the San Francisco Medical Society on July 22, 1873, Dr. J. F. Morse, Professor Emeritus of the Medical College of the Pacific, proposed a resolution concerning a State Board of Medical Examiners in the interest of raising the standards of Medical Education and the value of the Medical Diploma. His resolution read as follows:

Resolved, That in the opinion of this Medical Society, there should be a competent, independent State Board of Medical Examiners, whose duty it should be to carefully examine all persons who claim the proper qualifications, and who desire to obtain a diploma of regular medicine; and that to such applicants as pass this examination and receive the

¹Introductory Exercises of the Medical Department, University of California, "Western Lancet, 1873, p. 378.

endorsement of the aforesaid Board of Examiners, there should be issued a diploma from the highest possible State authorities, irrespective of any conditions except the thorough qualification of the applicant, as attested by the Board of Examiners.¹

Dr. Morse's resolution was adopted and commended to the consideration of the several medical associations throughout the State. At a meeting of the California State Medical Society on April 16, 1874, Dr. Morse presented his resolution as stated above. At this time, Dr. R. Beverly Cole attacked it with great severity, declaring it to be impracticable and preposterous, and he also reflected harshly on Dr. Morse. At this juncture, Dr. Henry Gibbons, Sr., interceded and proposed the following substitute for Dr. Morse's resolution:

Resolved, That it is desirable that there should be a uniform system of examinations for the Degree of Doctor of Medicine, apart from the institution of teaching, so that the Diploma shall be awarded to competent candidates, and at the same time, the profession and society at large, secured against the possibility of the Degree being conferred on unworthy and incompetent individuals.

Resolved, Therefore, that a committee of five be appointed by the chair, to prepare and present to the next annual meeting, a plan by which the said object can be accomplished.²

¹J. F. Morse, "Proposed Standard for the Doctorate," Pacific Medical and Surgical Journal, Vol. XVI (August, 1873), pp. 135-136.

²"Proceedings of the California State Medical Society," Pacific Medical and Surgical Journal, Vol. XVI (May, 1874), p. 616.

Dr. Morse accepted this substitute, and it was adopted unanimously. The chair appointed Drs. Morse, Logan, Gibbons, Sr., Shurtleff, and Hewaton, as the committee. In November, 1874, Dr. Morse became seriously ill, and he was confined to his room with little hope for recovery. He passed away on December 31, of the same year.^{1,2}

At the next meeting of the California State Medical Society on April 23, 1875, Dr. T. M. Logan read a report embracing the history of the attempt to establish, by law, a State Board of Medical Examiners to prevent quackery. He set forth the reasons and necessity for legislation to prevent the practice of medicine and surgery by unqualified persons. He then presented a copy of a proposed bill, to this end, to be presented to the next Legislature.³ On February 13, 1876, this second leading proponent of the coming Medical Practice Act, Dr. T. M. Logan, passed away. In 1872, Dr. Logan had been elected President of the American Medical Association, the highest honor which the confidence of

¹"Personal," Pacific Medical and Surgical Journal, Vol. XVII (November, 1874), p. 306.

²Ibid., January, 1875, p. 413.

³"Proceedings of the State Medical Society," Pacific Medical and Surgical Journal, Vol. XVII (May, 1875), p. 695.

the profession could bestow. At the time of his death he occupied the chair of Hygiene in the Medical Department of the University of California.¹ However, the "Act to Regulate the Practice of Medicine in the State of California"² was now in the State Legislature, and by April, 1876, it passed the two legislative Chambers and was approved by the Governor. It consisted of fourteen rather lengthy sections of which the following is a curtailed account:

1. Three months hence, Boards of Examiners consisting of seven members each shall be chosen annually from the State Medical Societies of California.

2. These Boards shall issue certificates, at a cost of \$1.00, to all who furnish satisfactory proof of having valid medical diplomas.

3. If the diploma is found fraudulent there will be a fine of \$20.00, and the owners of such diplomas can be certificated by the Board through examination up to January 1, 1877, after which date no certificates will be granted except to those holding valid diplomas.

4. All certificates issued by the Board shall be recorded in the Clerk's office of the town where the recipient resides.

5. The Board of Examiners can refuse or revoke certificates in cases of unprofessional or dishonorable conduct.

6. Every person practicing medicine in California must comply with the act or be liable to fines of \$50 to \$500 or imprisonment from 30 to 365 days.²

¹"Death of Doctor Logan," Pacific Medical and Surgical Journal, Vol. XVIII (March, 1876), pp. 491-492.

²"The Anti-quackery Law," Pacific Medical and Surgical Journal, Vol. XVIII (April, 1876), pp. 521-524.

The main objection to the above act was that it did not limit Homoeopaths or Eclectics. These groups also had state societies, and hence they could be certificated in the same manner as those Doctors with M.D. Degrees.

At the next meeting of the California State Medical Society, held on April 19, 1876, a State Board of Examiners was appointed. One of the seven members chosen for this Board was Dr. Henry Gibbons, Sr.. Dr. Gibbons was chosen even though there had been a motion that professors in medical schools should be excluded from the Board. This motion, which was defeated, had been backed by a small minority among whom was a reporter of the News Letter. The News Letter was a notorious blackmailing sheet published anonymously in San Francisco, and it had made many slanderous and derogatory accusations against Dr. Gibbons, Sr., as well as against other prominent medical men in San Francisco.¹

The first meeting of this State Board of Examiners was held in San Francisco on June 29, 1876, and was for the purpose of giving examinations. It was subsequently held in Sacramento, Chico, and Los Angeles for the same purpose.²

¹Postscript to the San Francisco News Letter, Vol. 25, No. 25 (July 10, 1875), p. 1, column 1.

²Henry Gibbons, Sr., "Editorial," Pacific Medical and Surgical Journal, Vol. XIX (June, 1876), p. 37.

One of the most valuable results of this law was that it prohibited individuals without proper credentials or of unsatisfactory professional character from entering into medical practice in California.¹ The law was to remain in existence for twenty-five years.

The question of female students in the medical schools arises at this time.—Women had been matriculating in the medical schools of Europe for a few years past, and many women in the United States, also aspiring to become physicians, began to move into the medical schools here. Women were not able to accomplish this feat without much opposition from the males, however. The editors of the Western Lancet objected to females on moral grounds as is seen from one of their editorials:

Educating Women in Medicine.—We notice that ten ladies have been matriculated in the "Medical Department of the University of Edinburg." The question of the propriety of educating females and males together is one that to-day is being discussed in all countries, but more especially in America, and certainly, as yet, no satisfactory conclusion has been arrived at. Restricting it to their education in our medical colleges it would seem to us that no sane mind could entertain it for a moment. The reasons why males and females should not be educated together in medicine, particularly anatomy, obstetrics, etc., are obvious, and were discussed at length before the American Medical Association at its last session.²

There was much resentment on the part of the males over the assertion by women that they had the "brain power"

¹Ibid., December, 1876, p. 332.

²E. Trenor and H. P. Babcock, "Editorial," Western Lancet, (January, 1872), p. 51.

necessary to make competent medical doctors. At the twenty-second annual session of the American Medical Association, held in San Francisco on May 2, 1871, Dr. Alfred Stille, president of the Association, delivered the annual address. In his address, he canvassed pretty fully the question of women doctors, and administered to the sex a merciless castigation for their attempts to rise to a level with men in intellectual pursuits. He "proved conclusively" that the female mind was vastly inferior to that of the male, and that women are incapable of studying and practicing medicine with success, or of attaining to distinction in any pursuit which requires mental force.¹

In 1874, Dr. Henry Gibbons, Sr., and Dr. Henry Gibbons, Jr., quoted the following sentence from the Medical Press & Circular:

We believe that if the gates for the admission of females were opened wide to-day, they would be closed in a few years for want of claimants for entrance, and that, as it would be found that there was no tempting demand for the services of female doctors, the supply would cease.²

¹Henry Gibbons, Sr., and Henry Gibbons, Jr., "Annual Meeting of the American Medical Association," Pacific Medical and Surgical Journal, Vol. XIV (June, 1871).

²Henry Gibbons, Sr., and Henry Gibbons, Jr., "Editorial," Pacific Medical and Surgical Journal, Vol. XVI (March, 1874), p. 527. Citing the Medical Press & Circular.

The Drs. Gibbons then proposed that we try the experiment in the medical schools of the United States, and see how it works out.

In 1873, Dean R. Beverly Cole of the Medical Department of the University of California had admitted Lucy Maria Field Warner, a woman in her thirties and a former school teacher, into his fold. Despite his contempt for the intelligence of most women, Dr. Cole nursed his female student through the medical curriculum, and she became the first woman graduate of medicine in California.^{1,2}

By 1875, the resistance against against women medical students showed definite signs of weakening. The Philadelphia Medical Times wrote on the subject as follows:

A chronicler of the passing events of the day cannot fail to note the continued growth of the 'women movement' in medicine. Abroad, Mrs. Garrett Anderson appears to be received freely in the best medical circles of London; at home, we have the President of our State Association congratulating the Society on the establishment of our Woman's Medical College; in New York a woman presides, or has presided, over the county medical society; and in Boston the Medical Journal lavishes praise on the Miss Susan Dimock, who was lost in the Schiller. As we said some time since, the day for discussion is over; and although the brain of the average woman does weigh less than that of the average man, and although some may believe the profession is being deteriorated, going to ruin, or what not, yet it is wiser to adapt ourselves to than to knock out our

¹F. T. Gardner, King Cole of California, p. 342-343. Reprinted from the Annals of Medical History.

²California and Western Medicine, 1925, p. 599.

brains against.¹

The California State Medical Society, in its session of April 20, 1876, admitted five women doctors to enter the society. There was some discussion and dispute over the matter at first, but the objectors relented, and the vote for their admission was unanimous and accompanied by much applause and cheering.²

The commencement exercises of the Medical College of the Pacific, on November 6, 1877, were highlighted by the conferring of the M.D. Degree on Alice Higgins, the first woman graduate of that institution. Miss Higgins was followed by Anabel McG. Stuart in 1878, and thereafter the number of women graduates increased.

The women had finally shown conclusively that they were capable of mastering the required studies for the Doctorate.

A comparison of size between the Medical College of the Pacific and other medical schools in the United States.—During this period of anti-quackery legislation and debate over women medical students it is of interest to note the sizes of the various medical schools in the

¹R. Gibbons, Sr., and H. Gibbons, Jr., "Editorial," Pacific Medical and Surgical Journal, Vol. XVIII (August, 1875), p. 140. Citing the Philadelphia Medical Times.

²"Sixth Annual Meeting of the State Medical Society," Pacific Medical and Surgical Journal, Vol. XVIII, (May, 1876), pp. 579-580.

United States. The following list of the leading medical schools in the United States in the year 1874, together with the number of graduates of each school is an indication of the extent of medical education in this country at that time:

Medical College of the Pacific.....	13
Med. Dept. of the Univ. of California.....	8
University of Pennsylvania.....	121
Jefferson Medical College (Philadelphia).....	151
College of Physicians and Surgeons, New York.....	84
Bellevue Hospital Medical College.....	181
College of Physicians and Surgeons, Baltimore.....	26
Medical College of Ohio.....	87
Med. Dept. of the University of Louisville.....	123
Cincinnati College of Medicine and Surgery.....	23
Chicago Medical College.....	44
College of Phys. and Surg's of Syracuse, N.Y.....	9
McGill University, Montreal.....	31
Detroit Medical College.....	20 ¹

This comparison shows the Medical College of the Pacific to be relatively small as compared to the older Eastern medical schools. However, by 1894, its successor, the Cooper Medical College, was to have as many as 73 graduates.

Dr. Lane goes to Europe.--In the summer of 1874, Dr. Levi Cooper Lane left the Medical College of the Pacific temporarily and sailed for Europe. Here he spent almost two and one-half years in the study of surgery and the European systems of medical education. His first

¹"General Summary," Pacific Medical and Surgical Journal, Vol. XVI (Mar, 1874), p. 536.

stop was in London where on January 29, 1875, he was made, by examination, a member of the Royal College of Surgeons of London.^{1,2} Next he went to Paris where he made the acquaintance of the leading celebrities of France.³ Being conversant in the German language, he left Paris, and pursued his studies in Berlin. Here he received a degree from Frederick William University, Prussia, on March 7, 1876. For this degree he wrote and defended an able dissertation entitled *Fractures of the Femur and Their Treatment*.⁴ By November, 1876, Dr. Lane was back in San Francisco, and at this time he delivered the *Valedictory Address* to the graduating class of the Medical College of the Pacific in which he told of the highlights of his trip.⁵

Dr. Henry Gibbons, Sr., defends the Medical College of the Pacific and American Medical Schools in general.--American medical graduates were frowned upon by

¹H. Gibbons, Sr., and H. Gibbons, Jr., "Editorial," Pacific Medical and Surgical Journal, Vol. XVIII (March, 1875), p. 507. Citing the London Medical Times.

²"Editorial on Dr. Levi Cooper Lane," Pacific Medical Journal, Vol. XLV (March, 1902), p. 161.

³"Letter from Levi C. Lane, M.D.," Pacific Medical and Surgical Journal, Vol. XVIII (Sept., 1875), pp. 153-157.

⁴Levi C. Lane, "Fractures of the Femur and Their Treatment," Pacific Medical and Surgical Journal, Vol. XVIII (May, 1876), pp. 545-567.

⁵"Address Delivered by Dr. L. C. Lane," Pacific Medical and Surgical Journal, Vol. XIX (Dec., 1876), pp. 389-309.

the British and European physicians of this period. This was largely due to the fact that American medical men had written so much in complaint of the low standard of education in this country, and on the low grade of our medical schools that foreigners were merely taking them at their word. In an effort to correct this situation, Dr. Henry Gibbons, Sr., wrote and presented a paper on "Some Defensive Remarks on the Medical Education and Medical Schools of America, and Particularly California" to the California State Medical Society on April 18, 1877. He spoke of the Medical College of the Pacific in these words:

I am sorry that a disposition exists in certain quarters to deery and frown down our California medical schools. Gentlemen who have no personal objects to achieve and no private griefs to gratify, could not possibly censure them for deficiency in means and requirements, were they to see for themselves their inner workings. In the college to which I am attached, the life of the student is one of constant industry and activity. Three days in the week he goes the round of the County Hospital, with its 400 patients, inspecting them for himself under the guidance of the professors—now in the medical ward, then in the surgical, from that to the ward for women and children and for diseases of the eye and ear, and so forth. At the college he has a similar opportunity of investigating disease in the dispensary patients, who crowd there on three days of every week in numbers greater than can be properly disposed of. He handles chemicals in the laboratory, investigates morbid anatomy, and works in the dissecting room. All this is done, not merely during the regular lecture term of five months, but the whole year round. Didactic teaching also goes on throughout the year. Advanced students have opportunities of attending cases of labor under the private

supervision of the professors. The stethoscope, the forceps, the clinical thermometer, the sphygmograph, the laryngoscope, and other instruments old and new, are not forgotten. Examinations are made daily during the lectures, and the final examination for the degree is thorough and searching. When I graduated in the University of Pennsylvania, my examination occupied a short three-quarters of an hour. At present two or three hours are required for each professor in our school. Our examinations are partly in writing, giving us a permanent record of the results.¹

The Medical College of the Pacific lengthens its term of instruction.—On April 17, 1878, the Faculty of the Medical College of the Pacific announced that it would extend its graduation requirements in conformity with Harvard, the University of Pennsylvania, and a few other medical schools. Instead of having to attend only two full courses of lectures, the students would now be required to have attended three full courses of lectures, the third of which must have been in this school. This rule was to go into effect in 1879.^{2,5} The Medical Department of the University of California also took this step at the same time, and the two schools were complimented in the American Journal of the Medical Sciences as follows:

¹H. Gibbons, Sr., "Some Defensive Remarks on the Medical Education and Medical Schools of America, and Particularly of California," Pacific Medical and Surgical Journal (June, 1877), pp. 1-9.

²H. Gibbons, Sr., and H. Gibbons, Jr., "Editorial," Pacific Medical and Surgical Journal, Vol. IX (April, 1878), p. 513.

³Ibid., May, 1878, pp. 568-569.

We are glad to learn from the California Trans-
action that the noble example of Harvard has borne
 good fruit on the distant shores of the Pacific.....¹

Alumni Association formed.—The Alumni of the
 Medical College of the Pacific were invited to meet at
 the College on the graduation day of November 11, 1878,
 and it was at this meeting that a permanent Alumni As-
 sociation was formed. Chester Rowell, son of the de-
 ceased Dr. Isaac Rowell, had the honor of being elected
 the first President. Henceforth the Association met
 once each year on commencement day.²

The last session of the Medical College of the
Pacific.—The Fall of 1882 saw the last class graduate
 from the Medical College of the Pacific. Dr. Levi Cooper
 Lane had now erected a beautiful new building, and invited
 the Faculty and students to participate with him in using
 it for their medical school.

¹Ibid., Vol. XXI (February, 1879), p. 422.

²"Alumni Association of the Medical College of the
 Pacific," Pacific Medical and Surgical Journal, Vol. XXI
 (Nov., 1879), p. 222.

CHAPTER V I

COOPER MEDICAL COLLEGE

In October, 1882, at a meeting of the Faculty of the Medical College of the Pacific, Dr. Levi Cooper Lane, President of the Faculty and Professor of Surgery, invited the members of the Faculty to join him in launching a new medical school. To this end he promised to provide a beautiful new brick and stone building which he had built, and which was now completed. Dr. Lane had been planning this project for many years, but he had kept it a secret so well that even his comrades in the Faculty did not know its purpose until it was almost finished. He had paid for the building and land, which were valued at not less than a hundred thousand dollars, with money earned entirely by himself in his profession.^{1,2} He later stressed this point because there were those who were saying that this building was constructed with money which Dr. Lane had received from his uncle's estate. Actually he had received nothing

¹Emmet Rixford, Levi Cooper Lane, M.D.--The Lane Popular Lectures, p. 1. Reprinted from California and Western Medicine (December, 1932), Vol. XXXVII, No. 6, and (January, 1933), Vol. XXXVIII, No. 1.

²Henry Gibbons, Sr., and Henry Gibbons, Jr., "Editorial," Pacific Medical and Surgical Journal, Vol. XXV (Nov. & Dec., 1882), p. 266.



LEVI COOPER LANE
1828-1902

from this estate except some bills which were presented to him when it was closed. The only money which Dr. Lane had received from his family was eighty dollars from his mother's estate, and this sum he used for a pedestal to support the heart and brain of Dr. Cooper, which was preserved in an inner sanctum of the college museum.¹

There was only one privilege and two conditions asked by Dr. Lane in offering his generous gift to the Faculty. The privilege was that the school be named Cooper Medical College in honor of his uncle, Dr. Elias Samuel Cooper. The two conditions were: first, that the building was to be used as an institution of medical education (if it should ever be deviated into any other channel, the City and County of San Francisco were to take possession of it for public purposes); and second; that a course of public lectures, called the "Lane Lectures" would be held annually, and delivered semi-monthly from January to May inclusive, and that admission would be free.²

¹Emmet Rixford, "History of the Cooper Medical College," Addresses at the Dedication of the Lane Medical Library (Stanford: Stanford University Press, 1912), p. 12.

²Cooper Medical College Announcement, 1884 (San Francisco: Alta California Book and Job Printing House, 1884), p. 9.

The Faculty of the Medical College of the Pacific accepted Dr. Lane's invitation, and united into a body under the leadership of Dr. Lane to form the corporation of the Cooper Medical College. This corporation was organized without capital stock, and with no view to pecuniary profit, but for the sole purpose of making the gift effective.¹ At this time, the Faculty expressed their regret to the University (City) College for having to sever connections with them and drop their former name. They stated that the Cooper Medical College still hoped to consider itself the Alma Mater of the graduates of the schools from which it grew, and offered to furnish its Diploma, free of charge, to all the old graduates who might desire it.^{2,3}

The new Cooper Medical College was formally inaugurated at the last commencement exercises of the Medical College of the Pacific held near the end of October, 1882. At these ceremonies Dr. Lane delivered the Valedictory in which he paid tribute to the memory of his

¹Edward R. Taylor, "Address Delivered on the Occasion of the Dedication of Cooper Medical College," Cooper College Addresses of Lane and Taylor Delivered on the Occasion of the Dedication of Cooper Medical College Building, 1882 (San Francisco: A. L. Bancroft and Co., Printers, 1882), p. 26.

²Cooper Medical College Announcement for 1884 (San Francisco: Alta California Book and Job Printing House, 1884), p. 7.

³H. Gibbons, Sr., and H. Gibbons, Jr., "Miscellany," Pacific Medical and Surgical Journal, Vol. XXV (Jan., 1883), p. 387.

beloved uncle, Dr. Elias Samuel Cooper, saying that this new building was evidence that Cooper's work had not been in vain, but that "He builded better than he knew".¹

The new Cooper Medical College building.--The new building was located at the corner of Sacramento and Webster streets in a then thriving and fashionable district of San Francisco known as the Western Addition. It is still standing, and, in fact, is still used by the Stanford School of Medicine. It was made as durable and as well adapted to the purposes of medical education as human art could devise. It was finished as perfectly as possible both inside and outside. The building had eighty feet of frontage on the two streets, and contained five floors plus a basement. The basement contained macerating facilities, furnaces, and storerooms; the first floor received the Morse Dispensary, being equipped for general and special clinics, a drugstore, and waiting rooms for men and women; second floor, a large lecture room with a seating capacity of six-hundred, a classroom for two-hundred students, and the Professors' room; third floor, private laboratory, and a chemical lecture room

¹Levi O. Lane, Address at the Dedication of the Cooper Medical College Building (San Francisco: A. L. Bancroft and Co., Printers, 1888), p. 22.



The Cooper Medical College, 1883

with seats for two-hundred students; fourth floor, reading room, library and magazine rooms, and large rooms for the anatomical and pathological museums; fifth floors, microscope room, and the students' laboratory and dissecting room.¹

The Faculty of the College, for several years, had performed their duties without a dollar compensation, leaving the entire income of the school to the purchase of required equipment and the establishment of a fund for future use. This fund was now sufficient to furnish every department lavishly with apparatus and instruments, and to lay the foundation for the museum and library of the new building.²

The Lane Popular Lectures.—As mentioned above, one of the conditions accompanying the donation of the property was the establishment of a course of free public lectures to be delivered by the various members of the Faculty. Dr. Lane's own statement of his purposes for establishing these lectures, which were soon designated the "Lane Popular Lectures", was as follows:

¹Cooper Medical College Announcement for 1884 (San Francisco: Alta California Book and Job Printing House, 1884), p. 8.

²H. Gibbons, Sr., and H. Gibbons, Jr., "Editorial," Pacific Medical and Surgical Journal, Vol. XXV (Nov. & Dec., 1882), pp. 266-267.

In the creation of this course, the founder has entertained the hope that besides being a public utility, it would tend somewhat to relieve medicine of the complaint of exclusiveness, often charged against it—of neglecting to contribute its quota to the diffusion of knowledge in those departments of science with which medical men are familiar. A prominent aim of a majority of these lectures will be to illustrate those topics which are comprised under the head of public health; some, however, will have a more scientific cast, and it is believed may aid in dispelling the errors popularly prevalent, that our profession is making no advances, and show to the contrary that no scientist is working more faithfully than the medical, and that in no department of science are more new tracts of knowledge being added than in medical science.¹

The first of these lectures was delivered on January 5, 1883. Their consecutive presentation from that date to the present testifies to an appreciation by the public of this educational effort. In initiating these lectures Dr. Lane was many years ahead of his time, most of the medical men of that period preferring to keep the secrets of their profession a mystery to the public.²

The tiff between Dr. Lane and Dr. Cole.—Ever since Dr. Cole had walked out of the Medical College of the Pacific to join the forces of Toland he and Dr. Lane had been at odds. Upon the death of Dr. Toland in 1880, Dr. Cole had taken over the presidency of the Faculty of the Medical Department of the University of California.

¹Cooper Medical College Announcement for 1884
(San Francisco: Alta Calif. Book & Job Printing House, 1884), p. 9.

²Emmet Rixford, Levi Cooper Lane, p. 2. Reprint from Surgery, Gynecology and Obstetrics Vol. LVI (Feb., 1933), pp. 246-250.

He watched Dr. Lane's new building rise brick by brick, and noticed how his own school's building, Toland Hall, seemed to shrink and age in comparison. This made him inwardly jealous of the resplendent new Cooper Medical College, and he betrayed this jealousy when as President of the Committee on Organization for the International Medical Congress, held in the United States in 1884, he caused Dr. Lane's name to be removed from every committee which had to do with the Congress. Dr. R. Beverly Cole certainly had a right to be jealous of the new building, because it was said to have no superior in the world in permanence and adaptation to all the purposes of medical education. Cole was not to get a new building for his school until 1897, and in the meantime Dr. Lane fought all attempts made by Cole to receive financial aid from the state.^{1,2}

Few intrinsic changes with the new building.--

Although the school had now undergone a radical change in its physical facilities, it remained much the same internally. The faculty, fees, curriculum, and entrance and graduation requirements remained practically unchanged

¹F. T. Gardner, King Cole of California, p. 346 and pp. 432-437. Reprinted from the Annals of Medical History, Vol. II, No. 3, pp. 245-258; Vol. II, No. 4, pp. 319-347; Vol. II, No. 5, pp. 432-442.

²"Editorial," Pacific Medical and Surgical Journal, Vol. XXXVIII, p. 236.

from those of 1882. However, changes in the curriculum and entrance requirements were to come rather swiftly during the next few years as the Cooper Medical College kept pace with the leading medical schools in the United States.

The lengthening course of instruction, and the stiffening entrance requirements of the 1890's and 90's.--

In 1879, the Medical College of the Pacific had lengthened its course of instruction from two years to three years. Simultaneously with this move the Faculty had determined to begin a campaign to stiffen the matriculation requirements, especially in regard to a knowledge of English. During the next three years this campaign continued. By 1883, all applicants to the Medical School, with the exception of high school graduates, successful college applicants, and certified school teachers, were to be subjected to an entrance examination. The examination was to cover a basic knowledge of English Composition, Physics, Arithmetic, and Latin. It is of interest to note that those who failed the Latin examination would be accepted conditionally if they would take the Latin course provided by the college.

In 1886, the Intermediate Course, which ran from January to May, and which up to this time had been optional was now made compulsory during the student's third year.

In 1891, the regular yearly course was lengthened from five months to six months, and the Intermediate Course was shortened by one month. This had a net effect of increasing the actual three years course of study by two months since the attendance of only one Intermediate Course was compulsory. It should be noted, however, that most of the students preferred to take advantage of all three of the Intermediate Courses as it was hoped they would do by the Faculty.

Finally, in 1893, it was decided to lengthen the curriculum to four years starting on January 1, 1894. However, the first year's work could be fulfilled by high school, college, or private instruction when evidence could be presented that the following subjects had been successfully studied: Anatomy, Elementary Physiology, Principles of Chemistry, and one of the following optional subjects, Pharmacy, Botany, Biology, Histology, Bacteriology. If a student were deficient in one or more of these subjects, he would be entitled to an examination in his deficiency. If he passed it, he could dispense with his first year.¹

More buildings by Dr. Lane.—In 1890, the College received some valuable donations consisting of two lots given by Dr. Lane and another lot given by Captain James M. McDonald. It will be remembered that Captain McDonald

¹Cooper College Announcements, 1884 through 1895.

had become friends with Dr. Elias Samuel Cooper when they travelled west on the same steamer back in 1855.

The College property now included two-thirds of a block of land. On part of this land Dr. Lane, at his own expense, erected another handsome brick and stone structure immediately adjoining the original building, and of the same size as the former. This new addition contained on the first floor, a large clinical lecture hall; on the second floor, a large public lecture hall (Lane Hall) with seats for a thousand persons; third floor, physiological and pathological laboratories, and microscopic instruction room; and on the fourth floor, a chemical laboratory and a large anatomical amphitheatre to seat five-hundred students.¹

During the years 1893 and 1894, Dr. Lane built a beautiful new hospital adjoining the College building on the corner of Clay and Webster streets. It cost \$160,000. Captain James McDonald, who had already donated the land on which the new hospital was built, now contributed \$ 25,000 in cash for the further support of the hospital. Claus Spreckels sent a check for \$25,000 for the same purpose, and Mr. Andrew McCreery followed this with \$6,000 for the maintenance of a bed in the hospital. The Faculty of the College donated \$20,000 from the proceeds of the students'

¹Cooper Medical College Announcement for 1893 (San Francisco: W. A. Woodward & Co., Printers, 1893), p. 5.



Lane Hospital, 1895

fees for furnishing and equipping the institution for its future work.^{1,2} Dr. Lane proposed to call this new edifice the Pauline Lane Hospital in honor of his wife. However, Mrs. Lane thought the simpler designation, Lane Hospital, was better and it was adopted. The Lane Hospital was formally inaugurated on January 2, 1895, with a surgical operation performed by Dr. Lane in the hospital amphitheatre and addresses by Dr. Lane and Dr. Edward R. Taylor. It was intended that the new hospital should furnish clinical cases for the instruction of the students of Cooper Medical College, and hence it was deeded by Dr. Lane to the College corporation.³ The medical and surgical staff of the Lane Hospital was composed of the Faculty of the College, but its doors were to be open to all regular practitioners. At this time, Dr. Lane established a training school for nurses in conjunction with the hospital.

The Lane Hospital was conducted by a Board of Managers appointed by the Cooper Medical College and consisting, at this time, of Professor L. C. Lane, President, Mrs. L. C. Lane, Professor C. N. Ellinwood, Secretary,

¹Occidental Medical Times, January, 1895.

²"Editorial," Pacific Medical and Surgical Journal Vol. XXXVIII, p. 97.

³Emmet Rixford, "History of the Cooper Medical College," Address at the Dedication of the Lane Medical Library (Stanford: Stanford University Press, 1912), p. 14.

Professor R. H. Plummer, Treasurer, and Professor Clinton Cushing.¹

In a vestibule of the hospital Dr. Lane inscribed the following words on a marble plaque:

This hospital, erected in the year 1893 by Levi Cooper Lane, physician and surgeon, with money earned by himself in his profession, is given by him to suffering humanity and to the healing art, in the hope that the former may here find refuge and relief; the latter, exercise of its humane skill and intelligent sympathy.²

The Lane Medical Lectures.--In 1895, Dr. Lane had completed plans for the beginning of a course of medical lectures to be given annually at the College by eminent medical and scientific men. These lectures differed from the Lane Popular Lectures in that they were to be directed at the practicing physicians and medical students as a means of helping them keep abreast of new medical knowledge and methods. The choice of Sir William Macewen, Regius Professor of Surgery of the University of Glasgow, to inaugurate the course of Lane Medical Lectures in the summer of 1896 gave them much prestige. After that there was never any trouble in obtaining men of the highest attainment in medicine, surgery, and medical research as lecturers.

¹A one-page circular announcing the opening of the Lane Hospital included in the Cooper Medical College Announcement for 1895.

²Due to remodeling of the Lane Hospital this plaque has been replaced by a picture of Dr. Lane and a bronze plaque denoting him as the builder of Lane Hospital.

The honorarium for the lecturer was to be \$2,000, and ten lectures, which were to remain the property of the lecturer, were to be given each year.

Dr. Lane had intended to endow these lectures, but unfortunately his fortune was now, for the most part, invested in unproductive real estate. He dared not use the money he had in the bank, because his health was rapidly beginning to fail and he and Mrs. Lane needed the income from this fund to live on. He therefore postponed setting aside a sum for the endowment of the lectures, but paid the honorarium annually out of his pocket. After his death, in 1902, Mrs. Lane paid it for one year, and when she passed away Dr. C. N. Ellinwood, who was now President of the College, and who received two-thirds of Mrs. Lane's estate, paid it for three years. On his refusing to continue this payment or to make effectual the endowment of the lectures, the course ceased. The lectures were revived again after the Cooper Medical College was conveyed to Stanford University. The Stanford Trustees granted to the Directors of the College the privilege of determining to what purpose the reserve funds of the College should be put. Out of this money the Directors set aside a 25,000 dollar endowment, the income from which would be sufficient to pay the honorarium every second year. The Stanford Trustees accepted this endowment; thus the Lane Medical Lectures have continued to

the present day.^{1,2,3}

The first salaried Professors.---Until 1898, all of the professors of the Cooper Medical College had their living from their practice of medicine and surgery. Their teaching had been supplemental to their practice, and they had not been paid for it. Thus, it was a great step forward when, largely through the efforts of Professors Adolph Barkan and J. O. Hirschfelder, Dr. William Ophuis (later Dean of the Stanford School of Medicine) was elected as paid Professor of Pathology in 1898.

Two years previous to this Professor Oliver P. Jenkins of Stanford University had begun making two trips weekly from Palo Alto to give a lecture and recitation course in physiology to the Cooper students. For this service he received only his travelling expenses. On his own initiative he established a laboratory of physiology in Cooper Medical College. In this undertaking he had the assistance of Ray Lyman Wilbur, a former pupil of his, and then a medical student in the Cooper Medical College. (Ray Lyman Wilbur later became Executive Head of

¹Announcements of the Lane Medical Lectures.
(Available in the Lane Medical Library, San Francisco.)

²Emmet Rixford, Levi Cooper Lane, p. 2. Reprint from Surgery, Gynecology and Obstetrics Vol. LVI (Feb., 1933), pp. 246-250.

³Emmet Rixford, "History of Cooper Medical College," Addresses at the Dedication of the Lane Medical Library (Stanford: Stanford University Press, 1912), pp. 14-15.

the Stanford Medical Department and President of Stanford University.) The Cooper Faculty gave Dr. Jenkins the sum of \$500 to equip his laboratory. The laboratory course was optional at first, but practically all the students attended it and it was soon made compulsory. In 1900, Dr. W. E. Garrey was elected as a salaried and full-time Professor of Physiology in the Cooper Medical College.^{1,2}

The Lane Medical Library.—Dr. Levi Cooper Lane and his wife had long cherished a plan to found and endow a great medical library for the benefit of the medical students and the profession at large. Each arranged, by their will, to leave all of their property to the other with the understanding that the survivor should carry out those plans. In 1903, Mrs. Lane died so soon after her husband that she did not have time to build the new library. However, she did bequeath to Cooper Medical College one-third of her estate, all that was permitted by the California law for charitable purposes or to a corporation, "for the erection and maintenance of a medical library and a special library building therefor, said library to be named 'The Levi Cooper Lane Library of Medicine and

¹Ibid., p. 15.

²O. L. Elliott, Stanford University, The First Twenty-five Years (Stanford: Stanford University Press, 1937), p. 535.

Surgery.¹

The one-third of the estate left by Mrs. Lane amounted to some \$40,000 in money and a one-third interest in a large amount of unproductive real estate valued at approximately \$150,000. The other two-thirds of the estate was bequeathed by Mrs. Lane to the President of Cooper Medical College, Dr. C. H. Ellinwood, and since he chose to consider it a personal gift it was not available for the library.²

In 1903, the Medical College Directors sold some of the land left by Mrs. Lane for \$35,000. With this money they bought a lot on the southeast corner of Webster and Sacramento streets as the proposed site for the new library.³

On August 29, 1906, the Lane Medical Library was formally created by resolution of the directors of Cooper Medical College and the Cooper College Library. It comprised about 8,000 volumes at this time, but shortly thereafter a collection of some 30,000 volumes was purchased from the New York Academy of Medicine.

¹Emmet Rixford, "A brief outline of the Lane Medical Library sent to George Thomas Clark, Stanford Librarian," Citing the will of Mrs. Lane in the Eighth Annual Report of the President of Stanford University, 1910-11, pp. 89-90.

²Emmet Rixford, "Brief Account of the History of the Lane Medical Library," Addresses at the Dedication of the Lane Medical Library, (Stanford: Stanford University Press, 1912), pp. 8-9.

³Ibid., p. 9.

The library of Cooper Medical College, which became the nucleus of the Lane Medical Library, had taken shape in 1895, having then about 300 volumes, mostly by donations by members of the Faculty. By donation, exchange, and purchase, the collection grew until, in 1902, it contained about 7,000 volumes. Upon the death of Dr. Lane it was further increased by the addition of Dr. Lane's personal library to 8,000 volumes and some 10,000 pamphlets.

Since the endowment for the Lane Medical Library was largely in unproductive real estate the available funds for library expenses and the purchase of books amounted to but \$1,200 a year. Cooper Medical College contributed the room and the salary of the assistant librarian, so that all of the \$1,200 might be spent for books and subscriptions to periodicals. About 136 periodicals were received regularly.¹

A new building to house the Lane Medical Library was to be built shortly after Stanford University acquired the Cooper Medical College.

Negotiations between Cooper Medical College and Stanford University.---Leland Stanford had stated in September, 1891, that at some future date a medical department

¹Emmet Rixford, "A brief outline of the history of the Lane Medical Library sent to George Thomas Clark, Stanford Librarian," Eighth Annual Report of the President of Stanford University for the year 1910-1911, p. 90.

would be established at the Leland Stanford Junior University which he had recently founded.¹ Dr. David Starr Jordan, who had accepted Leland Stanford's invitation to become the first President of the new University, was a scientist with a strong interest in medicine. He himself had an M.D. degree, and was of the belief that medicine was essentially a university subject, and that its teachers should be university professors. To this end he was to labor until the medical department became a reality in Stanford University.²

In 1892, the San Francisco Examiner carried a story to the effect that the Universities of California and Stanford "are both striving by every possible means to secure the Cooper Medical College." But, Dr. Jordan wrote, "There is nothing as yet in the discussion of the union of Cooper Medical College. It seems to have started in the city without any provocation on our part.....I do not think Mr. Stanford wishes to extend the University in the direction of medicine for the present."³

¹O. L. Elliott, Stanford University, The First Twenty-five Years, (Stanford: Stanford University Press, 1937), p. 534.

²David S. Jordan, The Days of a Man, (Yonkers-on-Hudson, New York: World Book Company, 1922), Vol. II, p. 280.

³O. L. Elliott, Stanford University, The First Twenty-five Years, (Stanford: Stanford University Press, 1937), p. 534. Citing a letter from Dr. Jordan to Timothy Hopkins, Nov. 12, 1892.

In June, 1893, Leland Stanford passed away, and the financial difficulties which followed his death stopped any further speculation on the medical department.

Dr. Levi Cooper Lane, whom Dr. Jordan held in high regard, was very much opposed to any union at this time as he was now building up his institution with as complete an equipment as his means and his unselfish and devoted Faculty could make possible. The Cooper Medical College properties were now valued at close to a million dollars. It was not long, however, before enormous expenses were being incurred by the College as it continued to keep its laboratories and clinical facilities on a par with the best medical schools in the United States. Also, more expense was involved when the College began to hire some full-time professors, and it was soon evident that new sources of support must be sought. Since the Cooper authorities were definitely averse to any connections with their old rival, the Medical Department of the University of California, they began turning to Stanford University. In 1901, the subject of a union between these two schools was discussed.¹ On October 30, 1901, Dr. Jordan wrote:

....As to the possibilities of organic union, should this be considered desirable by the Cooper Medical

¹Ibid., p. 535.

College, I may say that we would strongly favor it if it were practicable.....Our main difficulty is this: We are not ready to incur the expense of a salaried faculty; we do not think it is wise to begin without one.¹

Dr. Lane was now beginning to believe that his college would be more secure if it united with Stanford University. Just before his death on February 9, 1902, he made it possible for his trustees to exercise their own judgement in relation to the future of the college. After Dr. Lane's death Dr. Jordan entered into correspondence with Dr. Henry Gibbons, Jr., Dean of the Cooper Medical College. Also at this time, Dr. Clarence Blake of the Harvard Medical Faculty was asked to outline what a medical school of the future should be in regard to hospitals, organization, equipment, management, and so forth.

Communications continued between Dr. Jordan and the Cooper Medical College until a tentative form of agreement was drawn up by the Cooper authorities. This proposed agreement was presented by Dr. Jordan to the Academic Council of Stanford University for consideration. This committee, however, questioned certain parts of the proposed arrangement and concluded as follows:

¹Ibid., p. 536. Citing writings of Dr. Jordan on October 30, 1901.

In the judgement of this committee, as the proposed arrangement involves relations and consequences beyond the control of Stanford University, it is not expedient to deviate from the policy of the University to form no affiliation or alliance with any institution not an integral part of Stanford University; nor does it seem wise to take any action which might in any degree tend to embarrass the future policy of this University.¹

Thus ended this attempt at affiliation. It was not long, however, before the Cooper College authorities no longer asked for a mere affiliation, but instead offered a complete transfer of the College to Stanford University. On January 30, 1906, Dr. Jordan wrote of this new offer as follows:

....I am convinced that it is for the general interests of education that we should take charge of the Cooper Medical College, if it can be offered to us without any condition whatever except that we give instruction in medicine.²

On February 20, 1906, he wrote to Dr. William Schuls in the following words:

....The great difficulty with us--and it tends to grow larger as we get nearer to it --is the question as to whether the University will be able to maintain the medical school as it ought to be maintained without cramping the engineering school and the library and other departments already established. I should not be surprised if our Trustees should find it necessary to let the matter lie over for some time until they know better than they do now just where they are.³

Dr. Blake of Harvard sent his recommendations in a communication of March 19, 1906. He advised the Stanford

¹Ibid., p. 536. From the report of the Committee to Dr. Jordan, December 10, 1902.

²Ibid., p. 537. From a letter from Dr. Jordan to Stanford Trustee, Davis, January 30, 1906.

³Ibid., p. 537.

authorities to establish a graduate medical school devoted mainly to research work, and to collaborate with the University of California in a joint medical department. He further advised...."The time for duplication of medical schools had passed, and the demand (is) for concentration, and for unification and advance of educational standards."¹

Dr. Jordan agreed with this plan and on May 2, 1906, two weeks after the great San Francisco earthquake and fire disaster, presented Dr. Blake's report to the Stanford Trustees. He said the plan would involve an expense to the University of \$10,000, rising gradually to \$50,000 per year. On May 20, 1906, he wrote to Dr. William Ophuls:

....I have recommended to our Board of Trustees the acceptance of the Cooper Medical College property on the condition that we could use it, at least for the present, as a school of medical research.....Mr. Davis tells me that the authorities of Cooper Medical College do not approve.....The case then remains a matter of financial ability.....If it would result in crippling the instruction at Palo Alto, then it would be something we could not afford to undertake.....The action of the board will probably depend upon the reports made by the Finance Committee when the matter is ready for final decision.²

On October 17, 1906, Dr. Jordan inquired of President Wheeler of the University of California whether the two universities, while giving preliminary medical courses,

¹Ibid., p. 537. Citing a letter from Dr. Blake, March 18, 1906.

²Ibid., p. 538.

each on its own campus, could unite for clinical instruction and research work in San Francisco. He also attempted to interest the wealthy John D. Rockefeller in the establishment of a Research School of Tropical Medicine as a branch of the University. Neither of these gestures was favorably responded to.¹

Dr. Jordan was concluding in his own mind that Cooper Medical College ought to be acquired in some way, and that the financial difficulties should be left to work themselves out. On February 19, 1907, he wrote to Dr. Blake:

Please accept my thanks for your kind efforts in behalf of the medical college. I find no disposition on the part of the Cooper people to allow us to begin with the research end. It is on the whole rather probable that we will accept the trust, developing the instruction in medicine, first, in more or less the conventional fashion.....²

Thus had Dr. Jordan decided, for his part, to accept the Cooper offer, and the terms of the transfer were worked out. The financial obligation was the biggest stumbling block. Dr. Ophuls had thought that the Lane Hospital and the medical school could be made nearly self-supporting. Dr. Jordan assumed that the reserve funds of the College could be counted on for building repair, and that the University bacteriology and pharmacology could be

¹Ibid., p. 538.

²Ibid., pp. 538-9.

accommodated in the Quadrangle buildings on the Stanford campus.

In September, 1907, he recommended to the Trustees that they accept the Cooper offer. Some of the Trustees were convinced that it was too valuable to be rejected. On September 24, 1907, Trustee Davis wrote:

I am glad, very glad, to see that you have concluded to favor the Cooper Medical College. I am so sure that we have got to have a medical institution in connection with our professional teaching that it seems to me an exceedingly favorable opportunity to get what we want.¹

But the Board still hesitated, and continued to thrash over the financial aspects of the subject. On October 29, 1907, Trustee Timothy Hopkins wrote to Dr. Jordan:

My concurrence in the proposed acceptance of the Cooper College is dependent upon the amount of means we have left from our income after we have taken care of the establishment, development, and equipment of such departments as are needed to carry on the work we have already undertaken. The Finance Committee has stated that they think they can give the medical school \$25,000 at the end of five years. My own impression is that, while the medical school may get along for one or two years with this sum, in addition to such fees as may be collected from medical students the pressure for the development of such a department will run the net deficit of the school to \$50,000 or more.....Our income, unfortunately, is a fixed amount.²

Finally on January 31, 1908, the Board of Trustees adopted the transfer agreement by a vote of nine to two with

¹Ibid., p. 539.

²Ibid., pp. 540-1.

the following proviso: "That in case the needs of the proposed medical department, over and above its own separate income from medical students and other sources, should exceed \$25,000 per annum, the wants of other now existing departments shall have preference over such needs."

Under the arrangements adopted, the Cooper Medical College was to continue to function until it graduated all of its present students which would be in 1912. Instruction in the medical course would begin at the University in 1910, and in 1912, Sanford would take full charge of all advanced and clinical instruction.¹

¹Ibid., p. 541.

CHAPTER VII

THE STANFORD SCHOOL OF MEDICINE

Acceptance of the Cooper College properties by Stanford University.—On January 1, 1908, the Board of Trustees of Leland Stanford Junior University accepted the Cooper Medical College properties from the Cooper authorities with the following series of resolutions:

Whereas, Cooper Medical College, a corporation created and organized for the purpose of medical education under the laws of the State of California, and having its college buildings in the city and county of San Francisco, in said State, is about to convey and transfer to the Trustees of Leland Stanford Junior University all the properties, both real and personal, wheresoever the same may be situated, now belonging to said college, to the end that all said properties may be used by the Medical Department of said University for purposes of medical education; now, therefore, be it

Resolved, That we, as such Trustees, do accept all and singular said properties, to be used as aforesaid, including the erection and maintenance by us of a library building and library in said city and county of San Francisco, said library building to be named the Levi Cooper Lane Library of Medicine and Surgery, as provided for by the will of Pauline G. Lane, and to the extent of the properties and their proceeds bequeathed to Cooper Medical College by said will for the said purpose, and that all the diplomas issued by said University to those who have taken the course in said Medical Department shall bear upon their face the words 'founded as Cooper Medical College by Levi Cooper Lane'; and it is further

Resolved, That in the event any of the said buildings, together with the lands on which they

stand, are sold by said Trustees, then and in such event other buildings shall be erected out of the proceeds of such sale (said buildings to be used for the purpose of medical education), and on their walls shall be placed such tablets as shall in appropriate language perpetuate the name of Levi Cooper Lane. Further

Resolved, That said Trustees will maintain a perpetual fund for the maintenance of the Lane Medical Lectures not to exceed \$50,000 out of moneys which may be transferred to said Trustees for said purpose.¹

Preliminary organization of the Stanford School of Medicine.--Just as soon as the transfer of the Cooper Medical College properties was decided upon, Dr. David Starr Jordan, President of Stanford University, appointed a committee of three to consider the matters of organization of the Medical Department. This committee consisting of Professors Oliver P. Jenkins, C. D. Marx, and John M. Stillman, chairman. After consultation with many persons within and without the University this committee reported the following statement of organization and entrance requirements which was provisionally adopted by the Board of Trustees at its meeting of October 30, 1908:

Organization

The medical faculty shall consist of all professors and associate professors giving instruction in subjects included in the four years medical course or in any graduate course in Medicine, either in San Francisco or at the University, and all such members shall have votes in the medical faculty. Those members of the medical faculty who give practically full

¹Fifth Annual Report of the President of the University for the Year Ending July 31, 1908, p. 17.

time to instruction and who receive salaries from the University on that basis, and the dean or executive head of the medical department or school, shall be members of the Academic Council of the University under the same conditions and on the same basis as is provided under the articles of organization of the faculty. The members of the medical faculty who are at the same time members of the Academic Council shall represent the medical department or school to the University at large, as requirements for admission, requirements for graduation, standards of scholarship to be maintained, and these recommendations shall be subject to the approval of the Academic Council.

In other respects the medical faculty shall bear the same relation to the Trustees, the President and the University faculty as the other department faculties. The management of the hospital and of all administrative and executive work of the medical department or school shall be in the hands of the medical faculty and of such committees as they may select, subject to the control of the Board of Trustees.

Entrance Requirements

The entrance requirements of the medical course shall be modified by the properly organized medical faculty, with the approval of the Academic Council and the Board of Trustees, consist of three years (approximately ninety hours) credits in this University or the equivalent of such preparation in other university or college as accepted by the Academic Council or its committees, provided that such course shall have included one year of physics with laboratory work, one year of chemistry with laboratory work, one year of physiology or biology with laboratory work, and reading knowledge of either German or French (to the satisfaction of the medical faculty). The State law governing the practice of Medicine in the State of California prescribes that--

'Every person before practicing medicine or surgery or any of the departments of medicine or surgery in this State must. . . produce satisfactory testimonials of good moral character and a diploma issued by some legally chartered medical school, the requirements of which medical school shall have been, at the time of granting such diploma, in no particular less than those

prescribed by the Association of American Medical Colleges for that year.'

For the year 1908 the A.A.M.C. prescribes that every medical student must be registered in a medical college or department for four years and that his preparatory course shall have included 2 years of Latin, 2 years of mathematics, 2 years of English, 1 year of biology (or physiology) with laboratory work, 1 year of history, 2 years of laboratory science, and six years further credits in language, literature, history or science.

In order to 'adjust the pre-medical students to our major professor system' it is recommended that major students of any department in the University who wish to enter the medical department and who have completed three years of the requirements of such departments and who have included in their courses the subjects for entrance to the medical course, may at the beginning of their fourth (or senior) year in the University, register as students of Medicine, and on completion of the first year's course in Medicine may receive the degree of A.B. from the University. The Department of Physiology in its course for the A.B. degree includes all the work leading through the first year of the medical course, with the exception of practical human anatomy.^{1,2}

Upon the advice of this committee of three, Dr. Jordan appointed a larger committee, consisting of those members of the Stanford Faculty and of the Cooper Medical College Faculty who would doubtless be engaged in the future work of the department. This new committee was to act as a provisional Medical Faculty for the purpose of planning a tentative curriculum, and for maturing plans for the organization of the Medical Course at the

¹Ibid., pp. 18-20.

²For further development of the entrance requirements see the Appendix.

University and in San Francisco. This committee consisted of Professors Barkan, Gibbons, Hirschfelder, S. Stillman, Ophuls, Rixford, Cheney, Wilbur, Jenkins, MacFarland, Price, Snow, Swain, and J. M. Stillman (chairman). Those members of this committee who were not already members of the University Faculty were later elected members of the Medical Faculty, although in advance of their entering upon the active instruction work of the department.¹

This committee recommended that the first three semesters be given at the University buildings in Palo Alto, and the last five semesters at the Cooper Lane buildings in San Francisco. They also recommended a provisional schedule and curriculum which was approved by President Jordan and adopted, subject to amendment, by the Board of Trustees.² This committee, acting as a medical faculty, held regular sessions for considering the problems and immediate needs of the Department. A special committee, consisting of Professors Barkan, Ophuls, Rixford, Snow, and Wilbur (chairman), was elected to mature plans for the internal organization of the medical faculty. The reports of this committee, concerning

¹Sixth Annual Report of the President of the University for the Year Ending July 31, 1909, pp. 65-66.

²For the provisional curriculum as amended by the Board of Trustees see the Appendix.

the organization of the faculty, after amendment by the larger committee, were eventually adopted by the Board of Trustees.¹

The question of official designation of the department was raised by President Jordan, and in accordance with the almost unanimous consent of the Medical Faculty and of the Advisory Board of the Academic Council, it was resolved that the official designation be 'The Department of Medicine of the Leland Stanford Junior University'; thus expressing more completely its character as an integral part of the University.^{2,3}

In the matter of fees it was recommended by the Medical Faculty, and approved by the Board of Trustees, that the tuition fee be fixed at \$150 per year. This fee was to be payable in installments of \$75 at the beginning of each semester. There was also to be a general laboratory fee of \$5 for each of the first four semesters.⁴

¹For the faculty organization as adopted by the Board of Trustees see Appendix.

²Sixth Annual Report of the President of the University for the Year Ending July 31, 1909, p. 75.

³With the growth of Stanford University the "Departments" came to be called "Schools", and "Stanford University" replaced, to a great extent, the longer name of "Leland Stanford Junior University". Therefore, the title "Stanford School of Medicine" has replaced the official title as given above.

⁴For a more complete account of the fees see Appendix.

The actual instruction was scheduled to begin in the fall of 1909, a year sooner than was originally intended. It now became necessary to formally organize the faculty, and to that end President Jordan appointed, in May, 1909, John Maxson Stillman as Acting Executive of the Medical Department Faculty for the first year. The first Faculty consisted of the committee members already named plus Arthur W. Meyer, Professor-elect of Human Anatomy. However, since the first year's instruction was to be confined to the branches taught on the campus of the University, only those instructors giving instruction there were on the active list of the University for that year.

Vacancies on the Special or Executive Committee of the Medical Faculty, caused by the departure for extended absence of Professors Adolph Barkan and Ray Lyman Wilbur, were filled the election of Professors Henry Gibbons, Jr. and John M. Stillman (chairman). The Medical Faculty also appointed a committee of three--Professors O. P. Jenkins, A. W. Meyer, and J. M. Stillman (chairman)--for the consideration of questions which might arise as to the fulfillment of admission requirements of candidates.¹

¹Sixth Annual Report of the President of the University for the Year Ending July 31, 1909, pp. 76-77.

On September 8, 1909, the work of instruction in Medicine in Stanford Univercity was formally inaugurated by a University assembly, at which the principal address was delivered by Dr. Henry Christian, Dean of the Harvard Medical School. Dr. Henry Gibbons, Jr., Dean of the Cooper Medical College also delivered an address, and an introductory was delivered by President David Starr Jordan.¹

¹Seventh Annual Report of the President of the University for the Year Ending July 31, 1910, p. 59.

The Deanship of Dr. Ray Lyman Wilbur

Dr. Wilbur becomes Executive Head of the Medical Department.--During the first year of the Medical Department's existence Dr. Wilbur was away on a leave of absence preparing himself for his coming work as Executive Head of the Medical Department. On January 1, 1911, he first began his duties in this capacity.

Dr. Wilbur had received his degrees from Stanford University and Cooper Medical College, and had been on the teaching staff of both institutions. During his five year reign as dean, the Medical Department expanded its field, added to its faculty and curriculum, survived a financial crisis, and a good foundation for its future work was laid. Some of the more important events of Dr. Wilbur's deanship will be mentioned briefly in the following paragraphs.

Growth of the number of classes, the number of graduates, and of the Faculty.--During the first four years of the Medical Department's existence one new class had been added each year; thus in September, 1912, the full quota of four classes in medicine was taught for the first time. In the meantime, Cooper Medical College, by previous agreement, had retained control of its teaching facilities in San Francisco until all of its students



Ray Lyman Wilbur

were graduated; thus it was not until July 1, 1912, that Stanford University assumed complete control over all of the property of the Cooper Medical College. Concerning this event the Stanford Board of Trustees passed the following resolution:

Whereas, On the first day of July, 1912, Cooper Medical College and Lane Hospital did, by agreements previously made, pass from the control of the Directors of Cooper Medical College to the Trustees of Stanford University; and

Whereas, All the negotiations between the Trustees and the Directors attending the transfer of the Properties and the assumption by the Trustees of the obligations belonging thereto have been most harmonious and satisfactory; and

Whereas, The Directors have shown the utmost reliance on the good faith of the Trustees;

Now, therefore, be it resolved, That this Board desires to express to the former Directors of Cooper Medical College its appreciation of their broadminded action in all the transactions between the two bodies; and

Be it further resolved, That the Secretary of the Board be instructed to transmit to the Directors a copy of this minute and resolution.¹

The first graduating class of May, 1913, was composed of seven members including Dr. George DeForest Barnett, Professor of Medicine on the present Stanford Faculty. By 1916, the number of graduates had risen to twenty-four. At this time, the classes were limited to twenty-five members because of the limited teaching facilities.

¹Tenth Annual Report of the President of the University for the Year Ending July 31, 1913, p. 8. Citing the minutes of the Board of Trustees for August 1, 1912.

When Dr. Wilbur became dean, there were only twenty-seven members on the faculty of the Medical Department. By 1916, the faculty members numbered almost one-hundred. Among the additions to the faculty made during these five years were Frank Walter Weymouth, Instructor in Physiology, and present Head of the Department of Physiology at Stanford University; George DeForest Barnett, Instructor in Medicine; and Dr. Thomas Addis, Assistant Professor of Medicine.

Financial difficulties and the controversy over union with the University of California's Medical School.--

During the year 1912-13, there was a fairly widespread discussion as to the desirability and feasibility of uniting the medical departments of Stanford and California Universities. A conference was held at the request of the President of the University of California, and a tentative plan was presented by Stanford University with the aim of organizing one large institution for the teaching of medicine in San Francisco. No agreement was reached, however.¹

At this time, David Starr Jordan was made Chancellor of Stanford University, and Dr. John Caspar Branner succeeded him in the Presidency. Dr. Branner was earnest

¹Ninth Annual Report of the President of the University for the Year Ending July 31, 1913, p. 54.

and sincere in the belief that the University would be better off without the burden of a medical school which was, seemingly, becoming financially unbearable. He felt that if the other departments of instruction, long established, were to be maintained, then Stanford could not afford to develop a medical school. As a solution to the problem he thought that the Medical Department should be combined with that ^{of} the University of California; so the subject of union was again discussed between the two universities.

Difficulty, however, arose over the matter of control in the management of the proposed combination of the two medical departments. The regents of the University of California felt that they should have the majority control, and the Stanford Trustees did not feel that they could rightly turn over property or income to be managed by an institution in which Stanford did not have at least an equal voice. Thus, negotiations came to an end. During the progress of the discussion the Board of Trustees had provided for expert advice not only on the question of union, but upon the question of carrying on the Stanford Medical School in case the union failed. In accordance with this action, Dr. Victor C. Vaughan, Dean of the Medical School of the University of Michigan, was asked to investigate the situation,

and to give Stanford the benefit of his counsel. The question of union had definitely been settled before Dr. Vaughan reached the University, and his report became, therefore, one of advice upon the maintenance and development by Stanford University of a separate medical school.¹ Dr. Vaughn's report was very flattering in regard to the Medical Department. It strongly urged that Stanford should neither give it up nor unite with California's Medical School, but instead should work to develop it. Part of his report read as follows:

As I understand, the total cost of the medical department is now about one hundred thousand dollars per year. This cost will slowly increase. Notwithstanding this fact, I strongly urge that the medical school be not only continued but be developed.....

.....
The time may come when it may be wise to consolidate the two university medical schools of San Francisco, but I do not believe that this would be wise at present.....²

The "Vaughan Report" was very heartening to all those concerned with the fate of the Stanford Medical Department. Although the financial difficulties remained, the Medical Department, under the leadership of Dr. Ray Lyman Wilbur, survived them and continued to develop progressively.

¹Eleventh Annual Report of the President of the University for the Year Ending July 31, 1914, pp. 16-17.

²Copy of the letter sent to Dr. Branner by Dr. Vaughan on June 9, 1914. (Stanford Collection).

Building Operations and Plans during Dr. Wilbur's Deanship.--One of the first necessities of the new Medical Department was adequate laboratory space for the work of anatomy, pharmacology, and bacteriology which was done on the Stanford campus. In order to meet this necessity reconstruction was immediately started on some buildings in the rear of the museum building. These buildings were originally constructed as adjuncts to the museum building. The reconstruction and conversion of these "old rear line museum buildings" into laboratories for the above named subjects was completed in 1911.¹

Facilities for teaching Chemistry, Physiology, and other subjects taught during the first three semesters were already available in the Chemistry and Zoology buildings. Since April 22, 1917, this Zoology building has been designated as Jordan Hall in honor David Starr Jordan.²

When the Cooper authorities conveyed the Lane Medical Library Trust to the Trustees of Stanford University the latter advanced \$80,000 against the landed endowment. To this sum the Directors of the Cooper Medical College added \$20,000 from the reserve funds of the

¹Seventh Annual Report of the President of the University for the Year Ending July 31, 1910, p. 5 & p. 60.

²Fourteenth Annual Report of the President of the University for the Year Ending July 31, 1917, p. 6.



Anatomy And Bacteriology Laboratories On The
Stanford Campus

College. Thus, in 1911, it was possible to start construction of the new \$150,000 Lane Medical Library building at the originally proposed site on the corner of Webster and Sacramento streets. The new building was completed in the fall of 1912, and dedicated on November 3rd of that year with addresses by Timothy Hopkins, Emmet Rixford, and David Starr Jordan. It was a handsome building as can be seen by the accompanying picture, and looks the same today as when it was built. Its interior contained a large reading room with seating facilities for sixty to seventy persons, and stacks to shelve approximately 60,000 volumes with room for ample expansion. Dr. Adolph Barkan added \$5,000 to the Cooper College Teacher's Fund, which he had created and for which there was no longer any use, and gave this sum, which amounted to \$10,000 to the library for the Barkan Library of Ophthalmology and Otology.¹

With the removal of the books to the new library building it became possible to make alterations in Cooper Hall to provide adequate facilities for the outpatient department. The first and second floors of this latter building were now devoted entirely to clinics, and another

¹Emmet Rixford, "Brief Account of the History of the Lane Medical Library," Addresses at the Dedication of the Lane Medical Library, (Stanford: Stanford University Press, 1912), pp. 9-10.



THE LANE MEDICAL LIBRARY BUILDING
From an Architect's Drawing

part of it, Lane Hall, was converted into a large amphitheatre.¹

In the fall of 1913, the Division of Pharmacology was moved from the Stanford campus to Cooper Hall in San Francisco. Here it occupied a new laboratory on the fifth floor in rooms formerly used for topographical anatomy. This latter subject was now taught on the campus in Palo Alto.²

Plans laid for new buildings included those for the new Stanford University Hospital and for a new Nurses' Home. Work on the new hospital began in 1916, but the Nurses' Home was delayed until 1920.^{3,4}

Curriculum changes and improvement in teaching facilities.—The most important curriculum changes during Dr. Wilbur's administration consisted of modifying the four year course in medicine. The number of required hours was reduced, thus increasing the number of optional subjects, particularly in the senior year. Another important change was the addition of a fifth interne or practical year before granting the degree of Doctor of

¹Tenth Annual Report of the President of the University for the Year Ending July 31, 1911, p. 55.

²Ibid., p. 7.

³Ibid., p. 64.

⁴Thirteenth Annual Report of the President of the University for the Year Ending July 31, 1916, p. 6.

Medicine.¹ During the fourth or senior year the student was required to write a thesis from observations of work which he did in the clinics. This requirement lasted until 1931.

A summer graduate course was instituted in 1914. Its purpose was to provide for the needs of graduate Doctors.

Teaching facilities were much improved when the Medical School was assigned two excellent wards in the new San Francisco Hospital.² This hospital, completed in 1915, was one of the largest and most beautiful in the country. Even today it is an imposing sight on Portrero Avenue in San Francisco.

Growth of the Stanford School of Nursing during Dr. Wilbur's Administration.--The Lane Hospital Training School for Nurses was established by Dr. Lane in 1895. When the Lane Hospital came under the control of Stanford University on July 1, 1912, the Lane Hospital Training School for Nurses became the Stanford School of Nursing. This school was made a department of the Stanford School of Medicine. (The Medical Department of Stanford University was by now commonly referred to as the Stanford

¹Tenth Annual Report of the President of the University for the Year Ending July 31, 1913, p. 55.

²Twelfth Annual Report of the President of the University for the Year Ending July 31, 1915, p. 74.

School of Medicine.) It was under the direction of the Clinical Committee of the Medical School Faculty. This committee, which was also in charge of the Lane Hospital, was under the chairmanship of Dr. Ray Lyman Wilbur.¹

Although the number of nurses enrolled in the Stanford School of Nursing remained practically constant, the average number being about seventy-five a year, there was a notable increase in the number of instructors for the nurses. This was largely due to the enactment of the "eight-hour law" for student nurses. In order to meet the requirements of this law it was necessary to employ several additional graduate nurses to act as instructors in the various wards.²

Other events occurring under this administration.--

The first volume of the Stanford University Medical Bulletin was composed and issued in 1914. The purpose of this bulletin was the binding together of reprints of articles written by the Medical Faculty.

Also, there was a rapid growth of the outpatient clinics, and plans were laid for a dental clinic which was to be a part of the outpatient department.

¹Announcement of the Stanford School of Nursing, 1930-31, p. 15.

²Eleventh Annual Report of the President of the University for the Year Ending July 31, 1914, p. 64.

Dr. Wilbur resigns his deanship to become President of Stanford University.--While serving as dean Dr. Wilbur had shown such outstanding abilities in leadership and organization that he was chosen as President of Stanford University. On January 1, 1916, he succeeded Dr. Branner in the duties of that office. This change represented a great loss for the Medical Department. Dr. William Ophuls, the new dean of the Stanford School of Medicine, wrote of it as follows:

The Medical School suffered a severe loss through the transfer of Dean Wilbur to the presidency of the University. The rapid development of the Medical School in the past has been largely due to Dr. Wilbur's untiring efforts. All parts of the Medical School will miss his stimulating interest. They rejoice, however, in the knowledge that in his new position, although not so intimately connected with the work in San Francisco, he will still guide its larger policies as well as those of the rest of the University.¹

¹William Ophuls, "Report on the Medical Department," Thirteenth Annual Report of the President of the University for the Year Ending July 31, 1916, p. 91.

The Deanship of Dr. William Ophuls, 1916-1933

About Dr. Ophuls.---Dr. William Ophuls had received his undergraduate and graduate training abroad, and for two years had been Assistant at the Pathological Institute of the University of Gottigen. Upon returning to his native land, he became Professor of Pathology and Bacteriology at the University of Missouri. In the following year, 1898, he joined the Faculty of the Cooper Medical College in that same capacity. He held this same professorship in the Stanford School of Medicine when he succeeded Dr. Wilbur as dean in 1916.

Under Dr. Ophuls' administration the Medical School passed through World War I, a number of buildings were completed and others were planned, important curriculum changes were effected, research was developed in the Medical School, and there was a marked increase in the number of medical students.

The Stanford School of Medicine during World War I.---As soon as the United States entered the war the University placed its medical staff and hospital facilities at the disposal of the army and naval authorities for such use as they deemed fit. At the Medical school in San Francisco, under the direction of the medical staff, training schools were maintained for naval med-



William Dphöls

ical officers and naval hospital apprentices. Courses on emergency medicine, surgery, and military training were arranged for the students. A Red Cross Naval Base Hospital Unit was organized in connection with the Medical School, and most of the medical staff and nurses of Lane Hospital were ready to be called into active service at any time. The Medical School also organized the Stanford Naval Base Hospital Unit, with Drs. G. D. Barnett, P. K. Gilman, A. W. Hewlett, T. G. Inman, Stanley Stillman, R. B. Tupper, and F. Wolfsohn as members, and early in 1918, this unit went overseas.

Because so many of the members of the teaching staff joined the colors, its ranks were depleted to such an extent that any further losses through the entrance of members into active service would have led to the disorganization of the Medical School. Fortunately, however, the Armistice came sooner than expected, and most of the staff returned home.^{1,2}

The war cost the Medical School the loss of one of its most loyal and efficient members. He was Dr.

¹Fourteenth Annual Report of the President of the University for the Year Ending July 31, 1917, pp. 13, 77.

²Fifteenth Annual Report of the President of the University for the Year Ending August 31, 1918, pp. 13, 76.

Shadworth O. Beasley, formerly Assistant Clinical Professor of Obstetrics and Gynecology. Dr. Beasley was a Major in the Medical Corps of the Army, and was one of the first to be called into active service upon the entrance of this country into the war. He met his death on October 14, 1918, while rescuing wounded men under heavy fire on the Western Front.¹ A bronze plaque dedicated to his memory may be seen in the entryway of the Lane Medical Library in San Francisco.

Completed and proposed buildings during Dr. Ophuls' Deanship.--On June 24, 1916, work began on the excavation and foundation of the new Stanford University Hospital.² It was ready for patients by December 26, 1917. The new hospital, which was built adjacent to the Lane Hospital, contained the following features: one-hundred and eighty beds, wide halls, large solaria on each floor, balcony rooms, large and completely equipped service kitchens, utility and supply rooms, and generous accommodations for special nurses in the line of dressing rooms, rest rooms, locker rooms and bath. It also contained X-ray, hydrotherapeutic, electrotherapeutic, and operating rooms.

¹Sixteenth Annual Report of the President of the University for the Year Ending August 31, 1919, p. 93.

²Thirteenth Annual Report of the President of the University for the Year Ending July 31, 1916, pp. 6, 94.



Stanford University Hospital

The operating rooms had the novel arrangement of radiating from central work rooms.¹

At the time of the completion of the Hospital two floors had been left unfinished until such time as demands for accomodation should warrant their completion. The original plan was to use the uncompleted space for ward beds, but experience showed that rooms were in much greater demand than wards, and the plans were changed accordingly. Thus, in 1919, twenty-six more rooms were added on these two floors, and it was not long before they were filled with patients.²

In 1919, a roof garden for the use of recuperating patients was planned to be arranged atop the hospital where the view of the mountains, ocean, and bay is one of the finest in San Francisco. However, because of the immense running expenses of the hospital, this plan did not materialize.³

¹Fifteenth Annual Report of the President of the University for the Year Ending August 31, 1918, pp. 7, 77-78.

²Sixteenth Annual Report of the President of the University for the Year Ending August 31, 1919, p. 95.

³Sixteenth Annual Report of the President of the University for the Year Ending August 31, 1919, p. 95.

In 1913, the Board of Trustees of Stanford University had laid plans for a new Nurses' Home, but because of other pressing needs it was delayed for a few years.¹ In 1915, the Nurses' Alumnae offered to raise \$5,000 toward the new home provided they were given the privilege of a hospital bed for sick alumnae. The Board of Trustees accepted this offer, and the nurses raised the money. From another source \$1,000 was paid; so that the fund for the new home was at least started.²

When the Stanford University Hospital was constructed, the old Nurses' Home was wrecked. The nurses were then housed in four residences immediately adjacent to the hospital, in addition to Dr. Lane's old residence which they had previously occupied. By 1918, their residences numbered nine, and there was a tenth house for the male employees of the hospital.³ This scattering of the nurses in nine different houses caused much inconvenience.

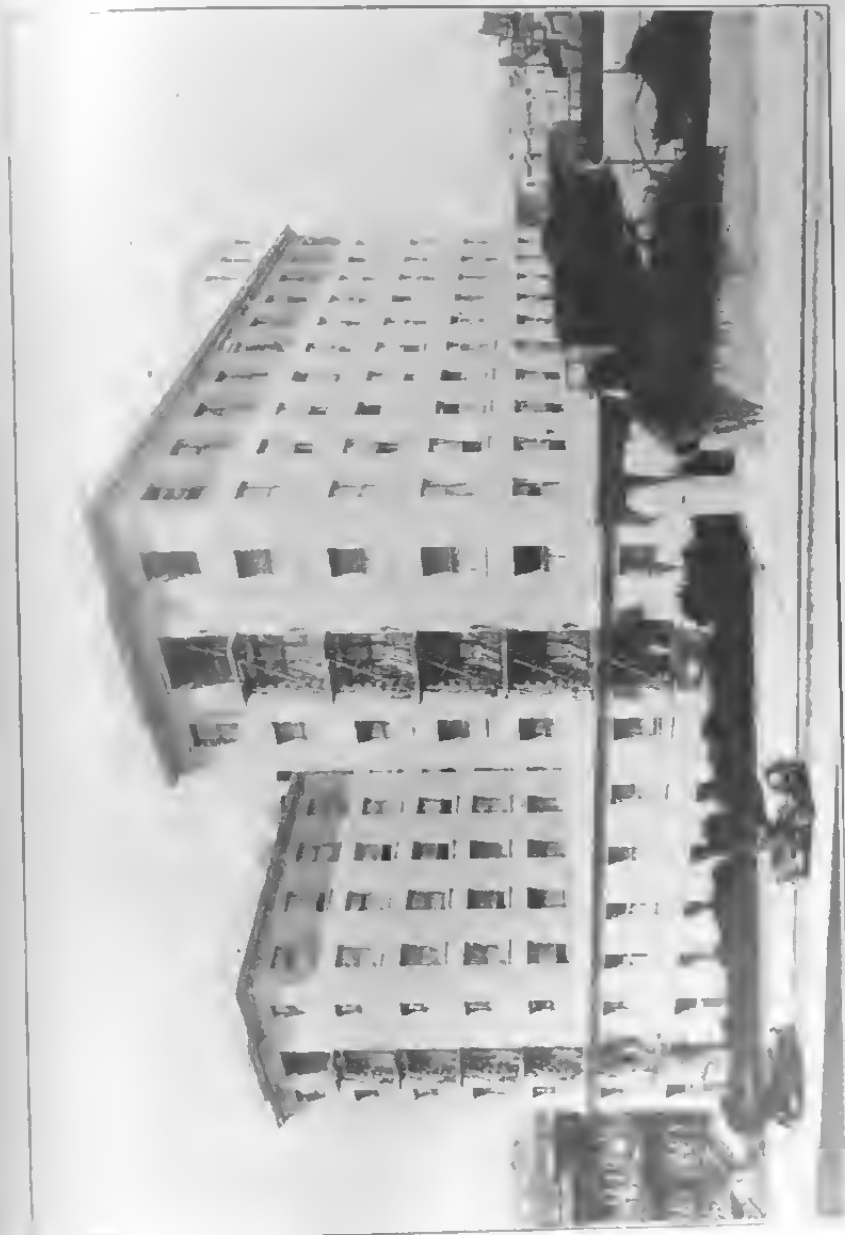
Finally, in 1920, the Nurses' Home was contracted for and construction began.⁴ It was completed in 1922,

¹Tenth Annual Report of the President of the University for the Year Ending July 31, 1913, p. 64.

²Twelfth Annual Report of the President of the University for the Year Ending July 31, 1915, p. 77.

³Thirteenth Annual Report of the President of the University for the Year Ending July 31, 1916, p. 94.

⁴Seventeenth Annual Report of the President of the University for the Year Ending August 31, 1920, p. 7.



THE STANFORD SCHOOL OF NURSING

and formally opened on March 31st of that year. Erected at a cost of about \$450,000, it is one of the finest and most complete buildings of its kind to be found anywhere. It is built of reinforced concrete, seven stories high, and has accommodations for two-hundred nurses. Besides bedrooms, it has large and beautifully furnished reception rooms, a music room, a library of several hundred books for general reading, and the current magazines. There is an auditorium with seating capacity for four-hundred and fifty, which may be used for lectures, dancing, or private theatricals. Housemothers have charge of the home and act as chaperones. The educational department consists of classrooms, a demonstration room, and laboratories for Chemistry, Bacteriology, and Dietetics. On the seventh floor of the building is the Nurses' Infirmary, where student nurses, taken ill in the line of duty, are cared for and treated gratuitously. The Infirmary is equipped as a small hospital, and is in charge of a woman physician as Medical Director.^{1,2}

¹Nineteenth Annual Report of the President of the University for the Year Ending August 31, 1922, pp. 1,164.

²Announcement for the Stanford School of Nursing, 1930-31, pp. 15-16.

For many years prior to 1921, a group of physicians and others interested in public welfare operated, in Palo Alto, a private hospital known as the Peninsula Hospital.

(Not at the site of the present Palo Alto Hospital.)

Through the Students' Guild, Stanford University had constant association with this institution. Due to the unusual hospital problems associated with World War I, and to the legislation regarding nurses, it began to lose ground. After consultation with the University authorities, the Town Trustees of Palo Alto held a special bond election and purchased the hospital. It was then placed under the management of the Physician Superintendent of the Stanford Hospitals, (the Stanford University Hospital and the Lane Hospital) and the University Comptroller. Thus, on July 1, 1921, the University took over the administration of the Peninsula Hospital. For legal and other reasons the City Supervisors decided to change the name from Peninsula Hospital to Palo Alto Hospital.¹

During the next few years the Palo Alto Hospital flourished, and it was soon evident that a new building would be needed if the hospital were to continue to grow. In 1925, the Palo Alto Medical Association sent a formal

¹Eighteenth Annual Report of the President of the University for the Year Ending August 31, 1921, pp. 14, 167-168.

petition to the City Council recommending the building of a new hospital. The subject received much attention in the public press and among local organizations, and two representative committees were appointed to investigate and report on the matter.¹ No immediate action was taken, however, and by 1927 the Palo Alto Hospital was bulging at the seams. During this year, Dr. Richard C. Brodrick, Physician Superintendant of the Stanford Hospitals, was directed to prepare a general plan with cost for the construction of a new Palo Alto Hospital on the site occupied by the old one.² Still no action was taken, however, but instead, some repairs were made on the old hospital.

Finally, in 1930, construction began on the new Palo Alto Hospital at its present site on the Stanford Campus. The new plant, more than double the size of the old one, was occupied in 1931.³

¹Twenty-Second Annual Report of the President of the University for the Year Ending August 31, 1925, p. 205.

²Twenty-Fourth Annual Report of the President of the University for the Year Ending August 31, 1927, p. 205.

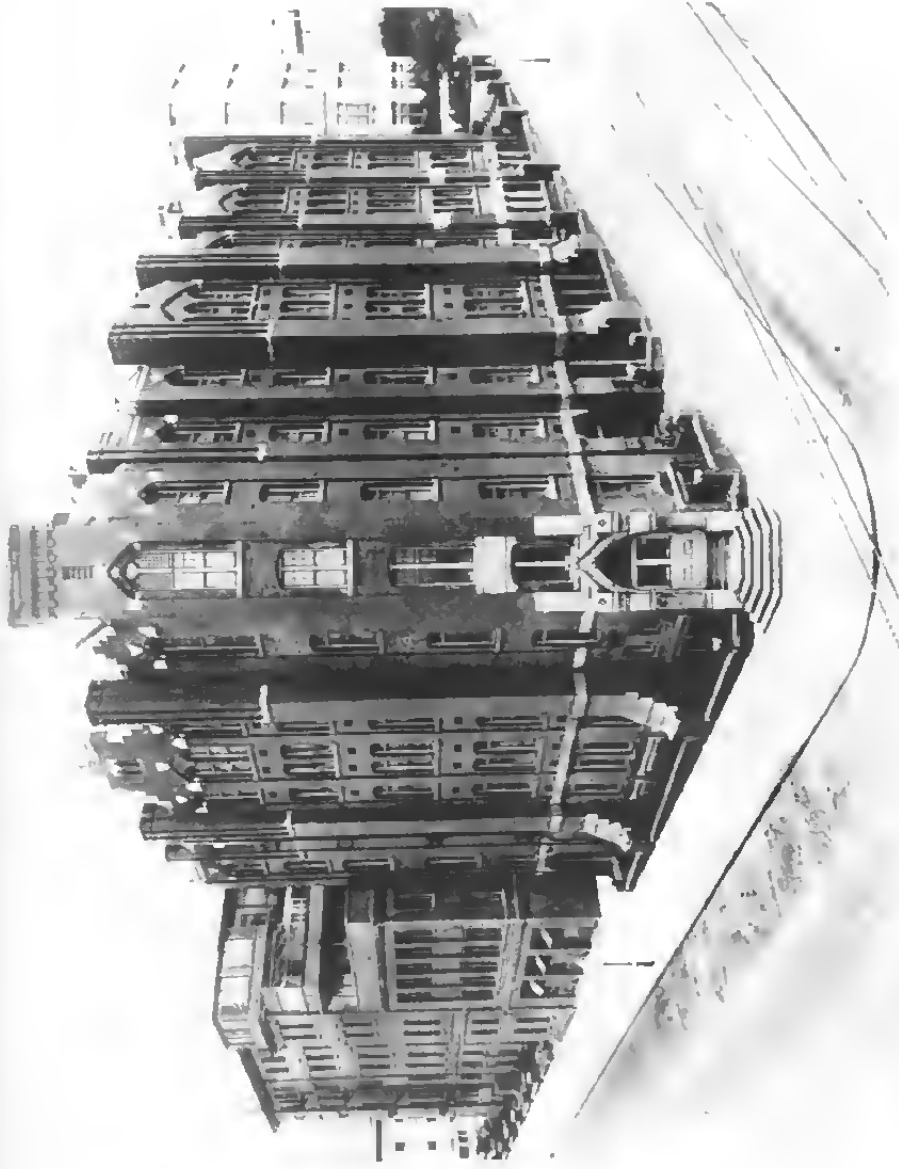
³Twenty-Ninth Annual Report of the President of the University for the Year Ending August 31, 1932, p. 273.

In connection with Stanford University's endowment campaign of 1922, an outline of the building needs of the Medical School, with the approximate cost of each building, was given as follows: The Department of Medicine should have a Women's Hospital with suitable endowment--\$250,000 to \$1,000,000, a Children's Hospital with suitable endowment--\$250,000 to \$1,000,000, and a Clinical Building--\$150,000. It should also have an Orthopedic Hospital with suitable endowment--\$250,000 to \$1,000,000, a Psychopathic Hospital with suitable endowment--\$100,000 to \$750,000, and a liberal endowment for the existing Stanford University Hospital and Lane Hospital.¹

In addition to the above mentioned needs of the Medical School, another problem was presenting itself in the inadequacy of the outdated Lane Hospital and the old Cooper Medical College building which was the basic housing for the Medical School in San Francisco. President Wilbur referred to this problem, in 1927, as follows:

The present buildings of the Medical School in San Francisco are entirely inadequate. Two of them, the old Cooper Medical College building and the Lane Hospital, are, in spite of much alteration, unfitted to serve as permanent housing. A new out-patient building, a new laboratory building, and new wards for clinical patients are urgently needed. In the

¹Nineteenth Annual Report of the President of the University for the Year Ending August 31, 1922, p. 37.



Stanford School Of Medicine In San Francisco

Stanford Hospital, Nurses' Home, and Lane Medical Library we have three excellent and modern buildings. The Stanford Hospital is too small to serve effectively as an economic administrative unit. There is constant demand for more beds. Plans are now being formulated for a one-hundred-bed addition, and efforts are being made to interest friends of medical education so that funds may be obtained for the new construction which is urgently needed.¹

In line with the above building needs reported by Dr. Wilbur, sketch plans were drawn up for a new Medical School building and for a combined Out-patient Department and Clinical Hospital building. These two buildings were to take the place of the old Cooper Medical College building and of the Lane Hospital. It was estimated that each of these buildings would cost approximately \$1,500,000, and that an additional sum of \$1,000,000 would be raised as a further endowment of the activities of the Medical School. At this time Dr. Ophuls wrote rather optimistically of the possibility of actually obtaining these buildings in the following words:

It is hoped that, with the co-operation of the University authorities and the Board of Trustees, it will be possible to raise in the near future two million dollars, which would allow us to go ahead with the new School of Medicine Building. The erection of the new out-patient building and the clinical hospital should have a strong appeal to all persons who are taking an interest in charitable work, and for that reason it is anticipated that the

¹Wilbur, Ray Lyman, "Future Development of the School of Medicine," Twenty-fourth Annual Report of the President of the University for the Year Ending August 31, 1927, p. 12.

raising of an additional two million dollars for this purpose will be a relatively easy matter, especially if we can secure the endorsement of the Community Chest.¹

Plans were also drawn up for a new wing for the Stanford University Hospital, and it was hoped that it would be possible to start building soon.

Dr. Ophuls' hopes were soon dashed, however, with the stock market crash of 1929, and the depression that followed. A ray of hope presented itself in 1931 when an anonymous donor offered to provide a sum of two and a half million dollars for the erection and equipping of a new building for the Medical School in San Francisco. The gift, however, was contingent upon the University securing the sum of one and a quarter million dollars for the endowment of the Medical School by February 1, 1932. Elaborate plans were undertaken to raise this sum. A booklet entitled "A Challenge to California and the West" was published by the Medical School as an appeal to the public. It was to no avail, however, and the time limit elapsed without the money being raised.^{2,3}

¹Ophuls, William, "Departmental Report for the School of Medicine," Twenty-fifth Annual Report of the President of the University for the Year Ending August 31, 1928, p. 192.

²Twenty-eighth Annual Report of the President of the University for the Year Ending August 31, 1931, p. 17.

³A Challenge To California and the West, pp. 3-4. Published by the Stanford School of Medicine, 1932.

Important curriculum changes during this administration.---During the year 1921-22, the medical curriculum underwent a slight revision in order to consolidate some of the classes, and to make the courses more uniform. Prior to this time there had been two transfers a year of students from Palo Alto to San Francisco for the work of their fifth quarter. Now, this was limited to one transfer in April. The work taken in San Francisco was prescribed along the lines outlined by the Association of American Medical Colleges, with a total of 4,000 hours in the curriculum. As a result of this revision, comparatively little regular undergraduate work was offered during the summer quarter, and opportunity was given, at that time, to offer special and advanced courses, particularly for research students and graduates in medicine.¹

Two years later, the Medical Faculty appointed a committee to revise the medical curriculum. On the recommendation of this committee it was decided that all required work in the medical school be reduced by eight per cent. This reduced the total number of hours of required work to something less than the 4,000 hours which were required by state law. The students were, therefore,

¹Nineteenth Annual Report of the President of the University for the Year Ending August 31, 1922, pp. 161-2.

required to make up the difference by doing elective work. In this work they had the choice of any department in the medical school, and the time could be used in research in preparation of their required thesis. The new schedule was a great improvement over the old one in that it did away with a good part of the overcrowding, and made it possible for the students to have an additional free afternoon a week.¹

In 1925, a Medical Faculty Committee on the Training of Laboratory Technicians recommended that a limited number of laboratory and technical assistants be trained in the laboratories of the Stanford University Hospital and Medical School. The committee worked out the details of such a training course. The recommendation was adopted by the Medical Faculty, and, subsequently, the training course was instituted.²

During the following year the schedule of work for the medical students during the third and fourth years was completely revised with the object of giving the students as much practical experience as possible. The third year students would now be assigned to practical ward work in the Lans and San Francisco hospitals, and the fourth year students could work in the out-patient

¹Twenty-first Annual Report of the President of the University for the Year Ending August 31, 1924, p. 158.

²Twenty-second Annual Report of the President of the University for the Year Ending August 31, 1925, pp. 197-9.

department where they would have, as much as possible, full charge of the patients under the supervision of the attending physicians. During the fifth year they would return to the hospital as student internes.¹

In 1927, a permanent Committee on Curriculum, on which all departments in San Francisco were to be represented, was created. Also, an important step forward was taken when the old course examinations were replaced by departmental examinations.²

The development of medical research.---When David Starr Jordan guided the University's first steps in medicine, research held a foremost place in his plans. At the dedication of the Lane Medical Library in 1912, he said:

And there is no work of the University more worthy or more needed than medical instruction and medical research, the training of men who shall keep their fellows in all their bodily ills, on the basis of the best and fullest knowledge, while themselves adding day by day to the world's stock of wisdom.³

Ray Lyman Wilbur was also an advocate of medical research, and in the early years of the medical school he laid the foundation for it to become one of the main endeavors of the Stanford School of Medicine.

¹Twenty-third Annual Report of the President of the University for the Year Ending August 31, 1926, pp. 185-6.

²Twenty-fourth Annual Report of the President of the University for the Year Ending Aug. 31, 1927, pp. 185-6.

³Jordan, David Starr, Address at the Dedication of the Lane Medical Library, Nov. 3, 1912, Published by the University, 1912, p. 19.

Under Dr. Ophuls' administration research work held a foremost position in the Faculty's activities, and, as previously mentioned, the medical curriculum was revised in order to allow the students to enter more actively into this line of endeavor. In 1917, the Board of Trustees passed the following resolution regarding animal experimentation:

Resolved that, in the interests of the public health and safety, The Board of Trustees of Leland Stanford Junior University protests against the adoption of any ordinance by the City and County of San Francisco to prevent animal experimentation for the purpose of medical research.¹

In 1929, the Medical School made a survey of the research publications of its staff over a ten year period. It found the total number to be approximately 1300, an average of 130 a year. This was indicative of the extent to which research was being carried on, and its quality is attested to by the gifts which have come from foundations and national organizations such as the Rockefeller Institute, the Carnegie Corporation of New York, the United States Interdepartmental Social Hygiene Board, and others.

A large share of this research work was concerned with basic problems in anatomy, physiology, and allied

¹Fifteenth Annual Report of the President of the University for the Year Ending August 31, 1918, p. 22.

sciences with the aim of laying the foundations on which practical advances in the prevention and alleviation of suffering might rest. An extensive study of the anatomy and physiology of the kidney was undertaken for information of value in treating Bright's Disease. Stanford's Department of Bacteriology succeeded in measuring the infantile paralysis virus, and sought for more information about it. More knowledge was also being sought about the endocrine glands, and the functions of the pituitary gland. The Department of Pharmacology rendered a wide service in developing methods of standardization. The United States Department of Agriculture stationed investigators in the department to make extended studies on the toxicity of metals, insecticides, preservatives, and other adulterants found in foods. The research experts of the Stanford School of Medicine, working with those from the University of California, helped to control botulism, a virulent form of food poisoning which once threatened serious injury in the canning industry.

Many new treatments were developed such as the use of "Iodobismitol", a bismuth compound worked out in the Pharmacology Department, for the treatment of paresis.

The hot-bath method of treating the same disease was another valuable development worked out in the Medical School.^{1,2}

The above mentioned items serve only as a brief indication of the vast amount of high quality research carried on during Dr. Ophuls' administration.

Growth of the Lane Medical Library during this period.--In 1913, Mis Louise Ophuls, sister of Dr. William Ophuls, became librarian of the Lane Medical Library, a position which she retained for thirty years. During this time the library showed considerable growth, especially in regard to its history collection. For the starting of this collection much credit is due to Dr. Emmet Rixford, himself a historian by hobby, who early gathered into the library all of the rapidly disappearing pamphlets and periodicals which would be of value for the compilation of a complete history of California Medicine at some future date. Also, Dr. Adolph Barkan, while in Europe, in 1921, secured the Seidel Library on the History of Medicine. This collection, which contained many medical books in the Turkish, Persian, and Arabic lan-

¹A Challenge to California and the West, (Stanford University: School of Medicine, 1932), pp. 15-19.

²Annual Reports of the President of the University for the Years 1916 to 1933.

guages together with works of ancient and medieval authors, combined with other purchases by Dr. Barkan, and the existing resources of the library gave Stanford one of the best collections on the history of medicine in the country.¹

During the year 1923-24, the third floor of the Lane Medical Library building was remodeled. New stacks were installed on the various floors, and exhibit cases and a beautiful reading room provided in connection with the Barkan Library on the History of Medicine.²

Included among the historical collections of the Lane Medical Library are the first edition of Vesalius' works on anatomy, a lengthy work of Ambrose Pare, Dr. Oliver Wendell Holmes' old hypodermic set, an analytical balance used by Dr. Elias Samuel Cooper, several of Dr. Levi Cooper Lane's old dissecting and operating instruments, and many volumes of extremely interesting medical books dating back to the fifteenth century.

¹Nineteenth Annual Report of the President of the University for the Year Ending August 31, 1922,
P. 9.

²Twenty-first Annual Report of the President of the University for the Year Ending August 31, 1924,
p. 6.

Increase in the number of medical and nursing students during Dr. Ophuls' deanship.--In 1916, the number of graduates from the Medical School had been twenty-four, and the number of students per class had been limited to twenty-five. By 1933, the graduates numbered forty-seven, and the student limit per class was fifty. Also, there were often as many as two to three-hundred applicants for the beginning classes. This was an indication not only of the trend toward medicine as a profession, but also of the high reputation of the Stanford School of Medicine.

Between the years 1916 and 1933, the number of students in the School of Nursing almost doubled, numbering one-hundred and forty-two in the latter year.

Other events of importance occurring under this administration.--In 1924, the Student Body of the Stanford School of Medicine in San Francisco perfected an organization. This was done with the consent of the President of the University and the Dean of the Medical School. Section I of the articles of organization read as follows:

The Student body of the Stanford Medical School in San Francisco shall be composed of all medical students including student internes duly registered in that branch of the School of Medicine of the

Stanford University located in San Francisco, California.

Purpose. The organization shall be established for the purpose of creating a spirit of co-operation among the members of the aforesaid body, and for the purpose of improving their education as prospective members of the medical profession, and for the investigation of all matters of interest to the student body of the Medical School at San Francisco.¹

When Dr. Morris Herzstein died in 1929, he left two bequests to Stanford University. One was the sum of \$100,000 for the establishment of a Chair of Biology in the University to be named in his honor, and the second was the sum of \$20,000, the income of which was to be used jointly by the University of California and Stanford University for medical lectures. These lectures, the Herzstein Medical Lectures, are given on alternate years by scientific men of outstanding achievement, and are open to the public as well as to the medical profession.^{2,3}

Dr. Ophuls' death.--Dr. William Ophuls passed away in San Francisco on April 27, 1933. In his honor, the Academic Council of Stanford University adopted the

¹Twenty-second Annual Report of the President of the University for the Year Ending August 31, 1925, pp. 194-5.

²Twenty-fifth Annual Report of the President of the University for the Year Ending August 31, 1928, p. 8.

³Announcement for the Morris Herzstein Lectures for 1929. (Stanford Collection).

following resolution:

Our Medical School and University suffered a grievous loss through the death of our colleague and friend, William Ophuls, Dean for seventeen years and Professor of Pathology for twenty-four. His quiet and modest demeanor, co-operate spirit and self-sacrificing devotion will always remain a treasured possession.

. . . His scientific interests were not limited to pathology, however, but extended to medical education and public health. He had the latter particularly at heart, was President of the Board of Health of the City of San Francisco for three years, and maintained his interest and influence in this work throughout his lifetime.

As teacher, William Ophuls enjoyed to an unusual degree the respect, confidence and affection of his students. He had their best interests at heart and they sought his presence and rejoiced in it. As pathologist, he shared fully in the arduous duties of his Department, even after relentless illness had overtaken him. He asked little in support of his own activities, accepting restrictions without complaint and placing the welfare and desires of others above his own. As Dean, he always had the best interests of the School at heart and co-operated fully for its improvement.¹

¹"Resolution Adopted by the Academic Council, June 16, 1933," Thirtieth Annual Report of the President of the University for the Year Ending August 31, 1933, p. 24.

The Administration of the Present Dean, Loren Roscoe
Chandler

Dr. Chandler's previous education and teaching experience.—Loren Roscoe Chandler received his A.B. degree and M.D. degree from Stanford University in 1920 and 1923, respectively. During the following two years he was Senior Interne in Surgery and Resident Surgeon at Lane Hospital. He was then appointed as Clinical Instructor in Surgery in which capacity he served until 1933 when he was promoted to Associate Professor in Surgery upon assuming his duties as Dean of the Stanford School of Medicine.

Under Dr. Chandler's administration, the Medical School has continued the development of its research program, improved its curriculum, increased its number of students, and survived World War II.

The continued emphasis on research.—Investigation in clinical and scientific medicine has continued to be carried on by every department of the Medical School. Such conditions as cancer, tuberculosis, anaemia, Bright's disease, infantile paralysis, high blood pressure, sleeping sickness, diabetes, peptic ulcer, heart diseases, mental diseases, diseases of bones and joints, and many others are continually being investigated from



Loren Roscoe Chandler

all view points. The aims of the medical researchers are to find out what causes the diseases, how they spread, how they behave, and how they can be cured and prevented. Funds for these investigations have been supplied by gifts, donations, and special grants from other sources outside of the University's regular source of income.¹

In 1939, the research program was substantially aided when the new Ruth Lucie Stern Research Laboratory was erected across the street from the Stanford University Hospital. It was a gift of Mrs. Louis Stern of Palo Alto, and is a modern building with good facilities for research.

Curriculum Changes.--Dr. Chandler instituted no change of policy in regard to the curriculum, but it was revised in content and sequence of courses. The policy continued to be one of giving the students as much practical clinical work as possible, and of minimizing the number of hours of didactic lectures.

Postgraduate review courses were offered for the first time in September, 1935. These were presented as practical review courses for practicing physicians. They were very successful, and were continued each year

¹Chandler, Loren R., Pioneering in Health A brochure offered by the Stanford Associates as a supplement to the Stanford Illustrate Review.



Ruth Lucie Stern Research Laboratory

until interrupted by the war.¹

In 1938, certain curriculum changes were made in order to permit more teaching of pathology in the second year before the students began their studies in clinical subjects, and to permit the third-year students to have more time for clinical work in the hospital wards. Changes were also made in the content of the courses which introduced the students to medicine, surgery, and obstetrics and gynecology.

The examination methods were also changed at this time. The limiting of examinations to yearly departmental examinations was discontinued. They were now allowed to be given in each course or by departments. A joint interdepartmental examination replaced the previous departmental examinations given for the seniors.²

The reduction of the number of hours of required electives from 200 hours to 100 hours became effective in 1940. At this same time the Pediatric Psychiatric Unit, established in October, 1939, was expanded. It now taught the junior and senior medical students not only in their own special field, but in conjunction

¹Thirty-third Annual Report of the President of the University for the Year Ending August 31, 1936, p. 261.

²Thirty-fifth Annual Report of the President of the University for the Year Ending August 31, 1938, pp. 313-314.

with the teaching in pediatrics, neurology and psychiatry, preventive medicine, and general medicine.¹

Increase in the number of students.--During the latter part of Dr. Ophuls' administration, the first-year class in medicine had been limited to fifty students. In 1933, sixty applicants were admitted, and this figure had been constant down to the present time.

A great increase in the number of graduates continuing their schooling after graduating has paralleled the increasing degree of specialization in the profession. It is interesting to note that only seventeen percent of the 1935 graduating class entered practice after their interne year, eighty-three percent of that class going on for further professional training.

The need for financial assistance.--That lack of adequate funds was preventing the Stanford School of Medicine from doing its full capacity/^{of} clinical, research, and educational work was emphasized by Dr. Chandler in 1937. He wrote as follows:

For several years the scope of our activities at the School of Medicine has remained stationary. Although we have an outstanding staff of physicians and allied scientists, lack of finances has pre-

¹Thirty-eighth Annual Report of the President of the University for the Year Ending August 31, 1941, p. 319.

vented us from doing any more clinical, research, or educational work than we did a few years ago. The time has come when we need additions to our staff and our facilities to do work which we are foregoing at the present time. These additions which we desire are necessary if we are to continue as medical leaders. For this reason it becomes essential that Stanford School of Medicine have an increase in endowment funds, the income especially designated for use at the Medical School and hospital.¹

The Stanford School of Medicine during World

War II.--The entrance of the United States into the war in December, 1941, made it necessary to change the Medical School program. The Medical School was pledged to continue to produce as many well-trained young doctors in as short a time as the personnel and physical facilities would permit; to make available, for active military duty, as many of the teaching staff as could be spared; to give facilities and personnel for research which might contribute to the war effort; and that, whenever possible, the School was to be available for the special training of medical officers assigned to it for that purpose. The executives in each department reviewed their curricula and the essential teaching positions of their departments. This resulted in a minimum, but essential, teaching faculty.

¹Chandler, Loren R., "Report for the School of Medicine," Thirty-fourth Annual Report of the President of the University for the Year Ending Aug. 31, 1937, pp. 295-6.

At a special meeting held in December, 1941, it was decided to place the Medical School on a four-quarter-per-year basis, eliminating the long summer vacation. It was agreed to admit only one freshman class in June of each year, and to schedule the required courses in the same sequence, but requiring four quarters of Medical School work per year for three years. The first freshman class on the accelerated program matriculated on June 18, 1942, and all classes attended a full required summer quarter.

Seventy-one members of the Faculty entered active military duty. Various members accepted appointments as advisers or consultants to the military forces, the Federal Government, in Civilian Defense, and other organizations directly connected with the war.

Research of a restricted and confidential nature, financed in part by grants either from the military services or from the National Research Council, was engaged in by several departments.

Students who had been earning their own way through school by working in the summer were now aided by funds such as that received from the W. K. Kellogg Foundation and other agencies.¹

¹Thirty-ninth Annual Report of the President of the University for the Year Ending August 31, 1942, pp. 333-335.

Until April, 1944, the entering classes were selected by the Stanford Committee on Admissions. After that date, fifty-five percent were selected by the Army, and twenty-five percent by the Navy. The remainder, twelve students, were selected by the Committee on Admissions from civilian pre-medical students ineligible for military service.¹

Other events occurring under Dr. Chandler's Administration.--In 1933, an agreement was reached between the San Francisco Polyclinic and the Stanford School of Medicine whereby the hospital services in the San Francisco Hospital, previously controlled by the San Francisco Polyclinic, now came under the control of the Medical School.²

A student health program was instituted in 1934, after considerable study and preparation. It was for students in medicine at San Francisco, and provided for their complete medical and hospital services with a few exceptions.³

¹Fortieth Annual Report of the President of the University for the Year Ending August 31, 1943, pp. 286-7.

²Thirtieth Annual Report of the President of the University for the Year Ending August 31, 1933, pp. 8-9.

³Thirty-first Annual Report of the President of the University for the Year Ending August 31, 1934, p. 269.

In 1942, the Medical Alumni Bulletin was changed considerably in title, form, and content by agreement between the officers of the Medical Alumni Association and the Alumni Committee of the Medical School Faculty. The new bulletin, entitled the Stanford Medical Bulletin, is truly a publication concerned with the Medical School and its Faculty, as well as with the Alumni of the Medical School. It has an editor and an editorial board. Each issue contains several original articles written by Stanford people. The new bulletin first appeared in its present form in May, 1942, and is now being published quarterly.¹

Future prospects for the Stanford School of Medicine.--The achievements of the Stanford staff and graduates are among the highest of all of the medical schools in the United States. Although restricted by lack of endowments, the Stanford School of Medicine has accomplished marvelous results, and has established its place among the leaders of medical education and research.

Dr. Chandler, in speaking of the future of the Medical School, has said:

It is one thing to establish and maintain a position but another to continue the rate of prog-

¹Fortieth Annual Report of the President of the University for the Year Ending August 31, 1943, p. 287.

ress of the past and forge ahead to new and broader goals. If the Stanford Medical School is to continue as a leader it must keep that grand esprit de corps which it has always had, but it must have, in addition, financial assistance to give it adequate facilities and equipment with which to work.¹

¹Chandler, Loren R., Pioneering in Health A Brochure offered by the Stanford Associates as a supplement to the Stanford Illustrated Review. No date or publisher mentioned.

CHAPTER VIII

CONCLUSIONS

The Stanford School of Medicine, having developed from the first medical department on the Pacific Coast, has a history which presents a vivid picture of the struggle for the advancement of medical education. Its story shows a struggle against opposition by antivivisectionists, lack of suitable teaching facilities, and inadequate financial backing. The changing of the status of the teachers in the medical school from those who taught without pay as a sideline to their general medical practice to full-time salaried professors, as well as the gradual stiffening of schooling requirements for the students of medicine, and a growing emphasis on research have highlighted the forward march of medical education. Progress has certainly been hastened by the ability and devotion of a few forward looking men who gave and are giving their time and energy to the advancement of medical education. No doubt, the major stumbling block to this progress has been and continues to be a financial one.

As people become more and more alive to the vital importance of medical education both to themselves personally and for the benefit of this country and the world at large they will, no doubt, divert a more suitable proportion of the wealth to this worthy endeavor.

This thesis has attempted to point^{out}, through the history of the origin and progressive development of the Stanford School of Medicine and a detailed appendix, how many of the problems of adequate medical education have been met on the Pacific coast during the past century, and thus assist the reader to gain a better insight into the past difficulties and future prospects of such an institution.

APPENDIX A

THE EARLY FACULTIES

I. Medical Department of the University of the Pacific:

1859, 1860, and 1860-'61:

James Morison, M.D., Professor of the Principles and Practice of Medicine.
 Isaac Rowell, M.D., Professor of Chemistry.
 R. Beverly Cole, M.D., Professor of Obstetrics and Diseases of Women and Children, and Dean.
 Elias S. Cooper, M.D., Professor of Anatomy and Surgery.
 B. R. Carman, M.D., Professor of Materia Medica.
 Hon. George Barstow, Professor of Medical Jurisprudence.

1861-'62:

James Morison, M.D., Professor of Pathology and of the Principles and Practice of Medicine.
 Isaac Rowell, M.D., Professor of Chemistry.
 R. Beverly Cole, M.D., Professor of Obstetrics and Diseases of Women and Children, and Dean.
 Levi C. Lane, M.D., Professor of Physiology.
 Elias S. Cooper, M.D., Professor of Anatomy and Surgery.
 Henry Gibbons, M.D., Professor of Materia Medica.
 Hon. George Barstow, Professor of Medical Jurisprudence.

1862-'63:

Isaac Rowell, M.D., Professor of Chemistry.
 R. Beverly Cole, M.D., Professor of Obstetrics and Diseases of Women and Children, and Dean.
 Levi C. Lane, M.D., Professor of Anatomy.
 Henry Gibbons, M.D., Professor of Materia Medica and Botany.
 A. J. Bowie, M.D., Professor of Pathology, and of the Principles and Practice of Medicine.
 J. P. Whitney, M.D., Professor of Institutes of Medicine.
 Hon. George Barstow, Professor of Medical Jurisprudence.
 James Murphy, M.D., Demonstrator of Anatomy.

1863-'64:

- Isaac Rowell, M.D., Professor of Chemistry.
 R. Beverly Cole, M.D., Professor of Obstetrics and
 Diseases of Women and Children, and Dean.
 A. J. Bowie, M.D., Professor of Surgery.
 Levi C. Lane, M.D., Professor of Anatomy.
 Henry Gibbons, M.D., Professor of Materia Medica and
 Botany.
 John F. Morse, M.D., Professor of Pathology, and of
 the Principles and Practice of Medicine.
 J. P. Whitney, M.D., Professor of Institutes of Medicine.
 Hon. George Barstow, Professor of Medical Jurisprudence.

1865 through 1869:

Period of Suspension.

1870:

- A. J. Bowie, M.D., Emeritus Professor of Surgery, and
 President of the Faculty.
 J. F. Morse, M.D., Emeritus Professor of the Principles
 and Practice of Medicine.
 J. P. Whitney, M.D., Emeritus Professor of Physiology.
 Henry Gibbons, M.D., Professor of the Principles and
 Practice of Medicine, and Clinical Medicine.
 Levi C. Lane, M.D., Professor of Surgery and Surgical
 Anatomy.
 Edwin Bentley, M.D., Professor of Descriptive and
 Microscopic Anatomy and Pathology.
 R. Beverly Cole, M.D., Professor of Obstetrics and
 Diseases of Women.
 Isaac Rowell, M.D., Professor of Diseases of Genito-
 Urinary Organs, and Orthopedic Surgery.
 C. N. Ellinwood, M.D., Professor of Physiology.
 W. F. Smith, M.D., Professor of Ophthalmology and Otology.
 Thomas Price, M.D., Professor of Chemistry and Toxicology.
 Henry Gibbons, Jr., M.D., Professor of Materia Medica and
 Therapeutics, and Dean.

1871:

- A. J. Bowie, M.D., Emeritus Professor of Surgery and
 President of the Faculty.
 J. F. Morse, M.D., Emeritus Professor of the Principles
 and Practice of Medicine.

1871: (continued)

Henry Gibbons, Sr., M.D., Professor of the Principles and Practice of Medicine.

Levi C. Lane, M.D., Acting Professor of Ophthalmology and Otolaryngology, and Professor of Surgery and Surgical Anatomy and Clinical Surgery.

Edwin Bentley, M.D., Professor of Descriptive and Microscopic Anatomy, and Pathology.

Clinton Cushing, M.D., Professor of Obstetrics and Diseases of Women and Children.

C. N. Ellinwood, M.D., Professor of Physiology.

Thomas, M.D., Professor of Chemistry and Toxicology.

Henry Gibbons, Jr., M.D., Professor of Materia Medica and Therapeutics, and Dean.

II. Medical College of the Pacific:

1872:

Same as that of 1871 for the Medical Department of the University of the Pacific.

1873:

- A. J. Bowie, M.D., Emeritus Professor of Surgery and President of the Faculty.
- J. F. Morse, M.D., Emeritus Professor of the Principles and Practice of Medicine.
- J. P. Whitney, M.D., Emeritus Professor of Institutes of Medicine.
- Henry Gibbons, Sr., M.D., Professor of the Principles and Practice of Medicine, and Clinical Medicine.
- Levi C. Lane, M.D., Professor of Surgery and Surgical Anatomy.
- Edwin Bentley, M.D., Professor of Descriptive and Microscopic Anatomy and Pathology.
- Clinton Cushing, M.D., Professor of Obstetrics and Diseases of Women and Children.
- C. N. Ellinwood, M.D., Professor of Physiology.
- Adolph Barkan, M.D., Professor of Ophthalmology and Otology.
- Thomas Price, M.D., Professor of Chemistry and Toxicology.
- Henry Gibbons, Jr., M.D., Professor of Materia Medica and Therapeutics, and Dean.
- Wm. A. Douglass, M.D., Demonstrator of Anatomy.

1874:

- A. J. Bowie, M.D., Emeritus Professor of Surgery and President of the Faculty.
- J. F. Morse, M.D., Emeritus Professor of the Principles and Practice of Medicine.
- J. P. Whitney, M.D., Emeritus Professor of Institutes of Medicine.
- Henry Gibbons, Sr., M.D., Professor of the Principles and Practice of Medicine, and Clinical Medicine.
- Levi C. Lane, M.D., Professor of Surgery and Surgical Anatomy.
- Edwin Bentley, M.D., Professor of Descriptive and Microscopic Anatomy, and Pathology.
- Henry Gibbons, Jr., M.D., Professor of Obstetrics and Diseases of Women and Children, and Dean.
- C. N. Ellinwood, M.D., Professor of Physiology.

1874: (continued)

Adolph Barkan, M.D., Professor of Ophthalmology and Otology.
 Thomas Price, M.D., Professor of Chemistry and Toxicology.
 J. R. Prevost, M.D., Professor of Materia Medica and
 Therapeutics.
 Joseph H. Wythe, M.D., Professor of Microscopic Anatomy,
 and Biology.
 Wm A. Douglass, M.D., Demonstrator of Anatomy.

1875:

Same as 1874 except for the following changes:

Dropped:

J. F. Morse, M.D., deceased, December 31, 1874.

Additions:

Charles McCormack, M.D., Emeritus Professor of Chemistry
 and Materia Medica.
 W. T. Wythe, M.D., Lecturer on Physical Diagnosis.

1876:

Same as 1875 except for the following change:

W. T. Wythe, M.D., replaced J. R. Prevost, M.D., (deceased,
 October, 1876) as Professor of Materia Medica and
 Therapeutics.

1877:

A. J. Bowie, M.D., Professor of Surgery, Emeritus.
 Charles McCormack, M.D., Professor Emeritus of Chemistry
 and Materia Medica.
 Henry Gibbons, Sr., M.D., Professor of Principles and
 Practice of Medicine.
 Levi C. Lane, M.D., Professor of Surgery and Surgical
 Anatomy, and Clinical Surgery.
 Edwin Bentley, M.D., Professor of Descriptive and Micro-
 scopic Anatomy, and Pathology.
 C. N. Ellinwood, M.D., Professor of Physiology.
 Adolph Barkan, M.D., Professor Ophthalmology and Otology.
 Jos. H. Wythe, M.D., Professor of Microscopy and Biology.
 Henry Gibbons, Jr., M.D., Professor of Obstetrics and
 Diseases of Women and Children, and Dean.

1877: (continued)

Wm. A. Douglass, M.D., Professor of Clinical Surgery.
 Wm. T. Wenzell, M.D., Professor of Chemistry and Toxicology.
 W. T. Wythe, M.D., Professor of Materia Medica and
 Therapeutics.
 Robert E. Williams, M.D., Demonstrator.

1878:

A. J. Bowie, M.D., Emeritus Professor of Surgery.
 Henry Gibbons, Sr., M.D., Professor of the Principles and
 Practice of Medicine, and Clinical Medicine.
 Levi C. Lane, M.D., Professor of Surgery and Surgical
 Anatomy, and Clinical Surgery.
 C. N. Ellinwood, M.D., Professor of Physiology.
 Adolph Barkan, M.D., Professor of Ophthalmology and Otology.
 Jos. H. Wythe, M.D., Professor of Microscopy and Histology.
 Henry Gibbons, Jr., M.D., Professor of Obstetrics and
 Diseases of Women and Children, and Dean.
 Wm. A. Douglass, M.D., Professor of Clinical Surgery.
 Wm. T. Wenzell, M.D., Professor of Chemistry and Toxicology.
 W. T. Wythe, M.D., Professor of Anatomy.
 Jos. O. Hirschfelder, M.D., Professor of Materia Medica and
 Therapeutics.
 Curtis G. Kenyon, M.D., Demonstrator.

1879:

Same as 1878 except that Dr. Levi C. Lane was listed only
 as Professor of Surgery.

1880:

Announcement missing.

1881:

A. J. Bowie, M.D., Emeritus Professor of Surgery.
 Henry Gibbons, Sr., M.D., Professor of the Principles and
 Practice of Medicine, and Acting Professor of
 Materia Medica and Therapeutics.
 Levi C. Lane, M.D., Professor of Surgery.
 C. N. Ellinwood, M.D., Professor of Physiology.
 Adolph Barkan, M.D., Professor of Ophthalmology and Otology.
 Jos. H. Wythe, M.D., Professor of Microscopy and Histology.

1881: (continued)

- Henry Gibbons, Jr., M.D., Professor of Obstetrics and Diseases of Women and Children, and Dean.
 Wm. A. Douglass, M.D., Professor of Clinical Surgery and Anatomy.
 Jos. O. Hirschfelder, M.D., Professor of Clinical Medicine.
 Clinton Cushing, M.D., Professor of Gynecology.
 W. D. Johnston, M.D., Professor of Chemistry and Toxicology.
 R. H. Plummer, M.D., Lecturer on Anatomy.
 Curtis G. Kenyon, M.D., Demonstrator.
 W. H. Hammond, M.D., Assistant Demonstrator.

1882:

- A. J. Bowie, M.D., Emeritus Professor of Surgery.
 Henry Gibbons, Sr., M.D., Professor of Principles and Practice of Medicine.
 Levi C. Lane, M.D., Professor of Surgery.
 C. H. Ellinwood, M.D., Professor of Physiology.
 Adolph Barkan, M.D., Professor of Ophthalmology and Otology.
 Jos. H. Wythe, M.D., Professor of Microscopy and Histology.
 Henry Gibbons, Jr., M.D., Professor of Obstetrics and Diseases of Women and Children, and Dean.
 Wm. A. Douglass, M.D., Professor of Clinical Surgery and Anatomy.
 Jos. O. Hirschfelder, M.D., Professor Clinical Medicine.
 Clinton Cushing, M.D., Professor of Gynecology.
 W. D. Johnston, M.D., Professor of Chemistry and Toxicology.
 L. L. Dorr, M.D., Professor of Materia Medica and Therapeutics.
 R. H. Plummer, M.D., Lecturer on Anatomy.
 C. E. Farnum, M.D., Demonstrator of Anatomy.

III. Cooper Medical College:

1883:

Announcement Missing.

1884:

Henry Gibbons, Sr., M.D., Professor of Principles and Practice of Medicine.
 Levi C. Lane, M.D., Professor of Surgery, and President of the College.
 C. N. Ellinwood, M.D., Professor of Physiology.
 Adolph Barkan, M.D., Professor of Ophthalmology and Otology.
 Jos. H. Wythe, M.D., Professor of Microscopy and Histology.
 Henry Gibbons, Jr., M.D., Professor of Obstetrics and Diseases of Women and Children, and Dean.
 Wm. A. Douglass, M.D., Professor of Clinical Surgery.
 Jos. O. Hirschfelder, M.D., Professor of Clinical Medicine.
 Clinton Cushing, M.D., Professor of Gynecology.
 W. D. Johnston, M.D., Professor of Chemistry and Toxicology.
 R. H. Plummer, M.D., Professor of Anatomy.
 Chas. H. Steele, M.D., Lecturer on Materia Medica, and Therapeutics.
 J. F. Morse, M.D., Adjunct to the Chair of Clinical Surgery.
 W. S. Whitwell, M.D., Adjunct to the Chair of Obstetrics.
 Chas. E. Farnum, M.D., Demonstrator of Anatomy.

1885:

Levi C. Lane, M.D., Professor of Surgery, and President of the College.
 C. N. Ellinwood, M.D., Professor of Physiology.
 Adolph Barkan, M.D., Professor of Ophthalmology and Otology.
 Jos. H. Wythe, M.D., Professor of Microscopy and Histology.
 Henry Gibbons, Jr., M.D., Professor of Obstetrics and Diseases of Women and Children, and Dean.
 Wm. A. Douglass, M.D., Professor of Clinical Surgery.
 Jos. O. Hirschfelder, M.D., Professor of Clinical Medicine, and Acting Professor of Principles and Practice of Medicine.
 Clinton Cushing, M.D., Professor of Gynecology.
 W. D. Johnston, M.D., Professor of Chemistry and Toxicology.
 R. H. Plummer, M.D., Professor of Anatomy.
 Chas. H. Steele, M.D., Professor of Materia Medica and Therapeutics.

1885: (continued)

J. F. Morse, M.D., Adjunct to the Chair of Clinical
Surgery.
W. S. Whitwell, M.D., Adjunct to the Chair of Obstetrics.
Chas. E. Farnum, M.D., Demonstrator of Anatomy.
A. A. Abrams, M.D., Demonstrator of Pathology.

1886:

Same as 1885 except for the following changes:

Change:

W. S. Whitwell, M.D., Adjunct to the Chair of Obstetrics
and Lecturer on Mental Diseases.

Addition:

O. L. Potter, M.D., Professor of Principles and Practice
of Medicine.

1887 and 1888:

Same as 1886.

1889:

Same as 1888 except for the following changes:

Changes:

Wm. A. Douglass, M.D., Emeritus Professor of Clinical
Surgery.
J. F. Morse, M.D., Professor of Clinical Surgery.

Addition:

E. E. Kelly, M.D., Assistant Demonstrator.

1890:

Announcement defaced.

1891:

Levi C. Lane, M.D., Professor of Surgery, and President of
the College.
C. N. Ellinwood, M.D., Professor of Physiology.
Adolph Barkan, M.D., Professor of Ophthalmology and Otology.
Jos. H. Wythe, M.D., Professor of Microscopy and Histology.

1891: (continued)

- Henry Gibbons, Jr., M.D., Professor of Obstetrics and Diseases of Women and Children, and Dean.
- Jos. O. Hirschfelder, M.D., Professor of Clinical Medicine.
- Clinton Cushing, M.D., Professor of Gynecology.
- W. D. Johnston, M.D., Professor of Chemistry and Toxicology.
- R. H. Plummer, M.D., Professor of Anatomy.
- Chas. H. Steele, M.D., Professor of Materia Medica and Therapeutics.
- O. L. Potter, M.D., Professor of Principles and Practice of Medicine.
- C. N. Ellinwood, M.D., Acting Professor of Clinical Surgery.
- W. S. Whitwell, M.D., Lecturer on Mental Diseases.
- Chas. E. Farnum, M.D., Adjunct to the Chair of Anatomy and Demonstrator of Anatomy.
- A. A. Abrams, M.D., Adjunct to the Chair of Clinical Medicine, and Demonstrator of Pathology.
- G. F. Hanson, M.D., Adjunct to the Chair of Materia Medica and Therapeutics, and Assistant at the Children's Clinic.
- G. W. Fuller, M.D., Assistant at Clinical Medicine.
- E. F. Card, M.D., Assistant at the Eye and Ear Clinic.
- D. F. Ragan, M.D., Assistant at the Nervous Diseases Clinic.
- R. L. Rigdon, M.D., Assistant at the Genito-Urinary Diseases Clinic

1892:

Same as 1891 except for the following changes:

Additions:

- Wm. Fitch Cheney, M.D., Adjunct to the Chair of Obstetrics, and Secretary of the College.
- A. W. Hoisholt, M.D., Assistant to the Chair of Physiology.
- Stanley Stillman, M.D., Assistant to the Chair of Clinical Surgery.
- Chas. M. Fisher, M.D., Assistant to the Chair of Microscopy and Histology.

1893:

- Levi G. Lane, M.D., Professor of Surgery and President of the College.
- C. N. Ellinwood, M.D., Professor of Physiology.
- Adolph Barkan, M.D., Professor of Ophthalmology, Laryngology, and Otology.
- Jos. H. Wythe, M.D., Professor of Microscopy and Histology.

1893: (continued)

Henry Gibbons, Jr., M.D., Professor of Obstetrics and Diseases of Women and Children, and Dean.
 Jos. O. Hirschfelder, M.D., Professor of Clinical Medicine.
 Clinton Cushing, M.D., Professor of Gynecology.
 W. D. Johnston, M.D., Professor of Chemistry and Toxicology.
 R. H. Plummer, M.D., Professor of Anatomy.
 Chas. H. Steele, M.D., Professor of Materia Medica and Therapeutics.
 Samuel O. L. Potter, M.D., Professor of the Principles and Practice of Medicine.
 C. N. Ellinwood, M.D., Acting Professor of Clinical Surgery.

Lecturers, Adjuncts, and Assistants:

A. M. Gardner, M.D.	A. A. Abrams, M.D.
Chas. E. Farnum, M.D.	G. F. Hanson, M.D.
Wm. Fitch Cheney (Secretary), M.D.	A. W. Hoisholt, M.D.
Stanley Stillman, M.D.	Chas. M. Fisher, M.D.
H. E. Sanderson, M.D.	B. F. Clarke, M.D.
G. W. Fuller, M.D.	D. F. Ragan, M.D.
E. F. Gard, M.D.	R. L. Rigdon, M.D.

1894:

Levi C. Lane, M.D., Professor of Surgery, and President of the College.
 C. N. Ellinwood, M.D., Professor of Physiology.
 Adolph Barkan, M.D., Professor of Ophthalmology, Laryngology, and Otology.
 Jos. H. Wythe, M.D., Professor of Microscopy and Histology.
 Henry Gibbons, Jr., M.D., Professor of Obstetrics and Diseases of Women and Children, and Dean.
 Jos. O. Hirschfelder, M.D., Professor of Clinical Medicine.
 Clinton Cushing, M.D., Professor of Gynecology.
 W. D. Johnston, Professor of Chemistry and Toxicology.
 R. H. Plummer, M.D., Professor of Anatomy.
 Chas. H. Steele, M.D., Professor of Materia Medica and Therapeutics.
 C. N. Ellinwood, M.D., Acting Professor of Clinical Surgery.
 Albert Abrams, M.D., Professor of Pathology.
 H. E. Sanderson, M.D., Professor of the Principles and Practice of Medicine.

Lecturers, Adjuncts, and Assistants:

A. M. Gardner, M.D.	Wm. Fitch Cheney, M.D. (sec.)
Chas. E. Farnum, M.D.	A. W. Hoisholt, M.D.
G. F. Hanson, M.D.	Chas. M. Fisher, M.D.

1894: (continued)

Lecturers, Adjuncts, and Assistants: (continued)

Stanley Stillman, M.D.	R. L. Rigdon, M.D.
Emmet Rixford, M.D.	W. M. Swett, M.D.
B. F. Clarke, M.D.	
D. F. Ragan, M.D.	

1895:

Levi C. Lane, M.D., Professor of Surgery, and President of the College.

C. N. Ellinwood, M.D., Professor of Physiology.

Adolph Barkan, M.D., Professor of Ophthalmology, Laryngology, and Otology.

Jos. H. Wythe, M.D., Professor of Microscopy and Histology.

Henry Gibbens, Jr., M.D., Professor of Obstetrics and Diseases of Women and Children, and Dean.

Jos. O. Hirschfelder, M.D., Professor of Clinical Medicine.

Clinton Cushing, M.D., Professor of Gynecology.

W. D. Johnston, M.D., Professor of Chemistry and Toxicology.

R. H. Plummer, M.D., Professor of Anatomy.

Chas. H. Steele, M.D., Professor of Materia Medica, and Therapeutics.

C. N. Ellinwood, M.D., Acting Professor of Clinical Surgery.

A. A. Abrams, M.D., Professor of Pathology.

H. E. Sanderson, M.D., Professor of the Principles and Practice of Medicine.

Lecturers, Adjuncts, and Assistants:

A. M. Gardner, M.D.	W. M. Swett, M.D.
Chas. E. Farnum, M.D.	Frank Fischer, M.D.
G. F. Hanson, M.D.	G. R. Hubbell, M.D.
Wm. Fitch Cheney, M.D., Secretary.	W. L. Berry, M.D.
A. W. Hoisholt, M.D.	G. B. Sommers, M.D.
Chas. M. Fisher, M.D.	R. L. Jump, M.D.
Stanley Stillman, M.D.	A. H. Taylor, M.D.
Emmet Rixford, M.D.	W. F. Finnie, M.D.
R. L. Rigdon, M.D.	

1896:

Levi C. Lane, M.D., Professor of Surgery, and President of the College.

C. N. Ellinwood, M.D., Professor of Physiology.

Adolph Barkan, M.D., Professor of Ophthalmology and Otology.

Jos. H. Wythe, M.D., Professor of Microscopy and Histology.

1896: (continued)

Henry Gibbons, Jr., M.D., Professor of Obstetrics and Diseases of Women and Children, and Dean.
 Clinton Cushing, M.D., Professor of Gynecology.
 R. H. Plummer, M.D., Professor of Anatomy.
 Charles H. Steele, M.D., Professor of Materia Medica and Therapeutics.
 C. N. Ellinwood, M.D., Acting Professor of Clinical Surgery.
 A. A. Abrams, M.D., Professor of Pathology.
 W. T. Wenzell, M.D., Acting Professor of Chemistry.
 A. M. Gardner, M.D., Acting Professor of Principles and Practice of Medicine, and Acting Professor of Legal Medicine, and Mental and Nervous Diseases.
 Oliver P. Jenkin, Ph.D., Acting Professor of Physiology. (Professor of Physiology and Histology, Leland Stanford Junior University.)

Lecturers, Adjuncts, and Assistants:

Chas. E. Farnum, M.D.
 G. F. Hanson, M.D.
 Wm. Fitch Cheney, M.D., (secretary)
 A. W. Hoisholt, M.D.
 Chas. M. Fisher, M.D.
 Stanley Stillman, M.D.
 Emmet Rixford, M.D.
 R. L. Rigdon, M.D.
 W. M. Swett, M.D.

Frank Fischer, M.D.
 G. R. Hubbell, M.D.
 W. L. Berry, M.D.
 G. B. Somers, M.D.
 R. L. Jump, M.D.
 A. H. Taylor, M.D.
 W. F. Finnie, M.D.
 C. F. Griffin, M.D.
 F. B. Sutherland, M.D.

1897:

Same as 1896 except for the following changes:

Changes:

A. M. Gardner, M.D., Professor of Legal Medicine and Mental Diseases.
 W. T. Wenzell, M.D., Professor of Chemistry.

Changes in Adjuncts and Assistants:

Dropped:

A. W. Hoisholt, M.D.
 W. L. Berry, M.D.

Additions:

A. B. McKee, M.D.
 E. G. McConnell, M.D.
 J. Mora Moss, M.D.
 Frank P. Gray, M.D.

1898:

- Levi C. Lane, M.D., Professor of Surgery, and President of the College.
- C. N. Ellinwood, M.D., Professor of Physiology.
- Adolph Barkan, M.D., Professor of Ophthalmology, Laryngology, and Otology.
- Jos. H. Wythe, M.D., Emeritus Professor of Microscopy and Histology.
- Henry Gibbons, Jr., M.D., Professor of Obstetrics and Diseases of Women and Children, and Dean.
- Jos. O. Hirschfelder, M.D., Professor of Clinical Medicine.
- Clinton Cushing, M.D., Professor of Gynecology.
- R. H. Plummer, M.D., Professor of Anatomy.
- Chas. H. Steele, M.D., Professor of Materia Medica and Therapeutics.
- C. N. Ellinwood, M.D., Acting Professor of Clinical Surgery.
- A. A. Abrams, M.D., Professor of Pathology.
- A. M. Gardner, M.D., Professor of Legal Medicine, Mental and Nervous Diseases.
- Oliver P. Jenkins, Ph.D., Acting Professor of Physiology.
- W. T. Wenzell, M.D., Professor of Chemistry.
- Chas. H. Steele, M.D., Acting Professor of Principles and Practice of Medicine.
- Chas. M. Fisher, M.D., Professor of Microscopy and Histology.

Adjuncts, Assistants, and Instructors:

- | | |
|------------------------------------|------------------------|
| Chas. E. Farnum, M.D. | A. H. Taylor, M.D. |
| G. F. Hanson, M.D. | E. G. McConnell, M.D. |
| Wm. Fitch Cheney, M.D., Secretary. | C. F. Griffin, M.D. |
| Stanley Stillman, M.D. | F. B. Sutherland, M.D. |
| Emmet Rixford, M.D. | Frank P. Gray, M.D. |
| R. L. Rigdon, M.D. | Henry Meyer, M.D. |
| A. B. McKee, M.D. | W. M. Thorne, M.D. |
| Frank Fischer, M.D. | S. H. Buteau, M.D. |
| G. B. Somers, M.D. | |

1899:

- M.D.,
- Levi C. Lane, /Professor of Surgery, and President of the College.
- C. N. Ellinwood, M.D., Professor of Physiology, and Acting Professor of Clinical Surgery.
- Adolph Barkan, M.D., Professor of Ophthalmology, Laryngology, and Otology.
- Jos. H. Wythe, M.D., Professor of Microscopy and Histology.

1899: (continued)

Henry Gibbons, Jr., M.D., Professor of Obstetrics and Diseases of Women and Children, and Dean.
 Jos. O. Hirschfelder, M.D., Professor of Clinical Medicine.
 R. H. Plummer, M.D., Professor of Anatomy.
 A. M. Gardner, M.D., Professor of Legal Medicine, Mental and Nervous Diseases.
 Oliver P. Jenkins, Ph.D., Acting Professor of Physiology.
 W. T. Wenzell, M.D., Professor of Chemistry.
 Stanley Stillman, M.D., Professor of Surgery.
 Emmet Rixford, M.D., Professor of Surgery.
 Wm. Fitch Cheney, M.D., Professor of Principles and Practice of Medicine, and Secretary of the College.
 William Ophuls, M.D., Professor of Pathology.

Adjuncts, Assistants, and Lecturers:

Chas. E. Farnum, M.D.	G. F. Griffin, M.D.
G. F. Hanson, M.D.	F. B. Sutherland, M.D.
R. L. Rigdon, M.D.	Frank P. Gray, M.D.
A. B. McKee, M.D.	Henry Meyer, M.D.
Frank Fischer, M.D.	W. M. Thorne, M.D.
G. B. Somers, M.D.	S. H. Buteau, M.D.
A. H. Taylor, M.D.	Driesbach Smith, M.D.
E. G. McConell, M.D.	W. W. Wymore, M.D.

1899-1900:

Levi C. Lane, M.D., Professor of Surgery, and President of the College.
 C. N. Ellinwood, M.D., Professor of Physiology, and Acting Professor of Clinical Surgery.
 Adolph Barkan, M.D., Professor of Ophthalmology, Otology, and Laryngology.
 Jos. H. Wythe, M.D., Emeritus Professor of Microscopy and Histology.
 Henry Gibbons, Jr., M.D., Professor of Obstetrics and Diseases of Women and Children, and Dean.
 Jos. O. Hirschfelder, M.D., Professor of Clinical Medicine.
 A. M. Gardner, M.D., Professor of Legal Medicine, Mental and Nervous Diseases.
 O. P. Jenkins, Ph.D., Acting Professor of Physiology.
 W. T. Wenzell, M.D., Professor of Chemistry.
 Stanley Stillman, M.D., Professor of Surgery.
 Emmet Rixford, M.D., Professor of Surgery.

1899-1900: (continued)

Wm. Fitch Cheney, M.D., Professor of Principles and Practice of Medicine, and Secretary.
 William Ophuls, M.D., Professor of Pathology.
 Chas. E. Farnum, M.D., Professor of Anatomy.
 G. F. Hanson, M.D., Professor of Materia Medica and Therapeutics.

Adjuncts, Assistants, Lecturers, Instructors, and Demonstrators:

G. B. Somers, M.D.	Philip K. Brown, M.D.
S. H. Buteau, M.D.	F. B. Sutherland, M.D.
R. L. Rigdon, M.D.	Driesbach Smith, M.D.
Frank Fischer, M.D.	G. H. Hubbell, M.D.
Ray Lyman Wilbur, M.D.	W. C. Riley, M.D.
C. F. Griffin, M.D.	E. G. McConnell, M.D.
A. H. Taylor, M.D.	W. W. Wymore, M.D.
Henry Meyer, M.D.	T. G. Inman, M.D.
W. M. Thorne, M.D.	Wm. Himmelsbach, M.D.
Frank P. Gray, M.D.	A. J. Zobel, M.D.

1900-1901:

Same as 1899-1900 except for the following changes:

C. N. Ellinwood, M.D., no longer Acting Professor of Clinical Surgery, but still Professor of Physiology.
 Chas. E. Farnum, M.D., no longer listed on Faculty.

Changes in Adjuncts, Assistants, etc.:

Dropped:

S. H. Buteau, M.D.
 Ray Lyman Wilbur, M.D.
 F. B. Sutherland, M.D.
 W. C. Riley, M.D.

Additions:

W. M. Carpenter, M.D.

1901-1902:

Levi C. Lane, M.D., Professor of Surgery, and President.
 C. N. Ellinwood, M.D., Professor of Physiology.
 Adolph Barkan, M.D., Professor of Ophthalmology, Otology, and Laryngology.
 Jos. H. Wythe, M.D., Emeritus Professor of Microscopy and Histology.
 Jos. O. Hirschfelder, M.D., Professor of Clinical Medicine.
 Clinton Cushing, M.D., Emeritus Professor of Gynecology.
 A. M. Gardner, M.D., Professor of Legal Medicine, Mental and Nervous Diseases.

1901-1902: (continued)

W. T. Wenzell, M.D., Professor of Chemistry.
 Stanley Stillman, M.D., Professor of Surgery.
 Emmet Rixford, M.D., Professor of Surgery.
 Wm. Fitch Cheney, M.D., Professor of Principles and
 Practice of Medicine, and Secretary.
 William Ophuls, M.D., Professor of Pathology.
 G. F. Hanson, M.D., Professor of Materia Medica and
 Therapeutics.
 G. B. Somers, M.D., Professor of Gynecology.
 Walter E. Garrey, M.D., Acting Professor of Physiology.
 A. H. Taylor, M.D., Acting Professor of Anatomy.

Adjuncts, Assistants, Lecturers, Instructors, and
 Demonstrators:

R. L. Rigdon, M.D.
 Frank Fischer, M.D.
 C. F. Griffin, M.D.
 Frank P. Gray, M.D.
 Philip K. Brown, M.D.
 Daniel Crosby, M.D.
 E. G. McConnell, M.D.

W. W. Wymore, M.D.
 T. G. Inman, M.D.
 Wm. Himmelsbach, M.D.
 Frank Blaisdell, M.D.
 H. R. Oliver, M.D.
 W. M. Carpenter, M.D.

1902-1903:

C. N. Ellinwood, M.D., Professor of Physiology, and
 President of the College.
 Adolph Barkan, M.D., Professor of Ophthalmology, Otology,
 and Laryngology.
 Henry Gibbons, Jr., M.D., Professor of Obstetrics and
 Diseases of Women and Children, and Dean.
 Jos. O. Hirschfelder, M.D., Professor of Clinical Medicine.
 Clinton Cushing, M.D., Emeritus Professor of Gynecology.
 A. M. Gardner, M.D., Professor of Legal Medicine, Mental
 and Nervous Diseases.
 W. T. Wenzell, M.D., Professor of Chemistry.
 Stanley Stillman, M.D., Professor of Surgery.
 Emmet Rixford, M.D., Professor of Surgery.
 William F. Cheney, M.D., Professor of Principles and
 Practice of Medicine, and Secretary.
 Wm. Ophuls, M.D., Professor of Pathology.
 G. B. Somers, M.D., Professor of Gynecology.
 Walter E. Garrey, M.D., Acting Professor of Physiology.
 A. H. Taylor, M.D., Professor of Anatomy.

Adjuncts, Assistants, Instructors, Lecturers, and
 Demonstrators:

R. L. Rigdon, M.D.
 Frank Fischer, M.D.

C. F. Griffin, M.D.
 Frank P. Gray, M.D.

1902-1903: (continued)

Adjuncts, Assistants, Instructors, Lecturers, and
Demonstrators: (continued)

Henry Harris, M.D.	Wm. Himmelsbach, M.D.
Frank Blaisdell, M.D.	W. M. Carpenter, M.D.
E. G. McConnell, M.D.	H. R. Oliver, M.D.
T. G. Inman, M.D.	

1903-1904:

Same as 1902-1903 except for the following changes:

Walter E. Garrey, M.D., changed from Acting Professor of
Physiology to Professor of Physiology.

Changes in Adjuncts, Assistants, etc.:

Dropped:

Frank Fischer, M.D.
C. F. Griffin, M.D.
Joseph L. Howard, M.D.
William Osmer, M.D.

Additions:

George Blumer, M.D.
M. E. Runwell, M.D.
W. R. Dorr, M.D.
N. R. Gibbons, M.D.
H. I. Bloch, M.D.
David Hadden, M.D.

1905-1906:

C. N. Ellinwood, M.D., Professor of Physiology, and
President of the College.
Adolph Barkan, M.D., Professor of Ophthalmology, Otology,
and Laryngology.
Henry Gibbons, Jr., M.D., Professor of Obstetrics and
Diseases of Women and Children, and Dean.
Jos. C. Hirschfelder, M.D., Professor of Clinical Medicine.
A. M. Gardner, M.D., Professor of Mental Diseases and
Legal Medicine.
W. T. Wenzell, M.D., Emeritus Professor of Chemistry and
Toxicology.
Stanley Stillman, M.D., Professor of Surgery.
Emmet Rixford, M.D., Professor of Surgery.
Wm. Fitch Cheney, M.D., Professor of Principles and Practice
of Medicine, and Secretary.
Wm. Ophuls, M.D., Professor of Pathology.
G. F. Hanson, M.D., Professor of Materia Medica and
Therapeutics.
G. B. Somers, M.D., Professor of Gynecology.
Albert H. Taylor, M.D., Professor of Anatomy.

1905-1906: (continued)

Walter E. Garrey, M.D., Professor of Physiology.
 R. L. Rigdon, M.D., Assistant Professor of Genito-Urinary
 Diseases.
 Frank E. Blaisdell, M.D., Assistant Professor of Anatomy.

Assistants, Instructors, and Lecturers:

Frank P. Gray, M.D.	Shadworth Beasley, M.D.
W. M. Carpenter, M.D.	E. C. Van Dyke, M.D.
Henry Harrie M.D.	A. H. Hirschfelder, M.D.
R. R. Rogers, M.D.	M. Cosgrave, M.D.
I. W. Thorne, M.D.	A. J. Houston, M.D.
M. E. Russell, M.D.	Edward C. Sewall, M.D.
W. R. Dorr, M.D.	J. L. Howard, M.D.
H. I. Bloch, M.D.	H. B. Reynolds, M.D.
H. R. Oliver, M.D.	A. W. Hewlett, M.D.
T. G. Inman, M.D.	Herbert Gunn, M.D.
Wm. Himmelsbach, M.D.	Eugene Zeile, M.D.
David Hadden, M.D.	G. M. W. Lehman, M.D.
J. B. Frankenheimer, M.D.	Henry W. Gibbons, M.D.
Philip M. Thomas, M.D.	E. Schmoll, M.D.
W. R. R. Clark, M.D.	Frank Fischer, M.D.
Wm. Oemers, M.D.	W. H. Winterberg, M.D.
G. D. Costigan, M.D.	C. McD. Cunningham, M.D.
D. R. Smith, M.D.	E. W. Thomson, M.D.
C. F. Griffin, M.D.	Elizabeth Keys, M.D.
David Friedlander, M.D.	Mary W. Turnbull, M.D.
R. E. Peck, M.D.	H. C. McOlenahan, M.D.
Philip F. Abbott, M.D.	H. Spire, M.D.
L. M. Haight, M.D.	W. F. Blake, M.D.
Otis B. Spaulding, M.D.	C. D. Coleman, M.D.
E. G. McConnell, M.D.	H. O. Von der Lieth, M.D.
	F. P. Topping, M.D.

1906-1907:

Same as 1905-1906 except for the following changes:

Promotions:

Frank E. Blaisdell, M.D., Associate Professor of Anatomy.
 Frank P. Gray, M.D., Assistant Professor of Diseases of
 Women and Children.
 H. R. Oliver, M.D., Assistant Professor of Pathology.
 A. W. Hewlett, M.D., Assistant Professor of Principles
 and Practice of Medicine.

1906-1907: (continued)

Instructors, Assistants, and Lecturers:

W. M. Carpenter, M.D.	H. Spiro, M.D.
Henry Harris, M.D.	Millicent Cosgrave, M.D.
I. W. Thorne, M.D.	H. O. Von der Leith, M.D.
M. E. Rumwell, M.D.	F. P. Topping, M.D.
W. R. Dorr, M.D.	Morton R. Gibbons, M.D.
Thomas G. Inman, M.D.	F. E. Raynes, M.D.
David Hadden, M.D.	Henry W. Gibbons, M.D.
J. B. Frankenheimer, M.D.	Howard Somers, M.D.
P. M. Thomas, M.D.	H. J. Schlageter, M.D.
W. R. P. Clark, M.D.	W. M. Dickie, M.D.
G. D. Costigan, M.D.	R. S. Martin, M.D.
D. R. Smith, M.D.	R. K. Smith, M.D.
E. C. Sewall, M.D.	F. W. Edmunds, M.D.
J. L. Howard, M.D.	C. L. Powers, M.D.
Herbert Gunn, M.D.	R. W. Preston, M.D.
Eugene Zeile, M.D.	G. B. Wilson, M.D.
G. M. W. Lehmann, M.D.	Sol. Hyman, M.D.
E. Schmoll, M.D.	W. C. Alvarez, M.D.
Frank Fischer, M.D.	R. W. Peck, M.D.
W. H. Winterberg, M.D.	P. F. Abbott, M.D.
R. F. Fitzgerald, M.D.	Shadworth O. Beasley, M.D.
David Friedlander, M.D.	

1907-1908:

Changes from 1906-1907:

Promotions:

I. W. Thorne, M.D., Assistant Professor of Surgery.
 E. C. Sewall, M.D., Assistant Professor of Ophthalmology.

Instructors and Assistants:

W. M. Carpenter, M.D.	Henry W. Gibbons, M.D.
Henry Harris, M.D.	R. K. Smith, M.D.
M. E. Rumwell, M.D.	Sol. Hyman, M.D.
W. R. Dorr, M.D.	A. J. Rimmel, M.D.
T. G. Inman, M.D.	Morton R. Gibbons, M.D.
David Hadden, M.D.	Langley Porter, M.D.
J. B. Frankenheimer, M.D.	Ernest Chipman, M.D.
P. M. Thomas, M.D.	C. M. Cooper, M.D.
W. R. P. Clark, M.D.	R. E. Peck, M.D.
D. R. Smith, M.D.	H. Spiro, M.D.
J. L. Howard, M.D.	Millicent Cosgrave, M.D.
Herbert Gunn, M.D.	F. E. Raynes, M.D.
E. Schmoll, M.D.	C. L. Powers, M.D.

1907-1908: (continued)

Frank Fischer, M.D.
 Walter H. Winterberg, M.D.
 F. F. Fitzgerald, M.D.
 David Friedlander, M.D.
 Shadworth O. Beasley, M.D.
 F. P. Topping, M.D.
 L. S. Mace, M.D.
 H. I. Wiel, M.D.

R. S. Martin, M.D.
 R. W. Preston, M.D.
 G. B. Wilson, M.D.
 Howard Somers, M.D.
 Adolph Berg, M.D.
 W. F. Blake, M.D.
 A. L. Fisher, M.D.

1908-1909:

Adolph Barkan, M.D., Professor of Ophthalmology, Otology and Laryngology.
 Henry Gibbons, Jr., M.D., Professor of Obstetrics and Diseases of Women and Children, and Dean.
 Jos. O. Hirschfelder, M.D., Professor of Clinical Medicine.
 A. M. Garder, M.D., Professor of Mental Diseases and Legal Medicine.
 W. T. Wenzell, M.D., Emeritus Professor of Chemistry and Toxicology.
 Stanley Stillman, M.D., Professor of Surgery.
 Emmet Rixford, M.D., Professor of Surgery.
 Wm. Fitch Cheney, M.D., Professor of Principles and Practice of Medicine, and Secretary.
 Wm. Ophuls, M.D., Professor of Pathology.
 G. F. Hanson, M.D., Professor of Materia Medica and Therapeutics.
 Geo. B. Somers, M.D., Professor of Gynecology.
 Walter E. Garrey, M.D., Professor of Physiology.
 Frank E. Blaisdell, M.D., Associate Professor of Anatomy and Instructor in Histology.
 R. L. Rigdon, M.D., Assistant Professor of Genito-Urinary Diseases.
 Frank P. Gray, M.D., Assistant Professor of Diseases of Women and Children.
 H. R. Oliver, M.D., Assistant Professor of Pathology.
 A. W. Hewlett, M.D., Assistant Professor of Principles and Practice of Medicine.
 I. W. Thorne, M.D., Assistant Professor of Surgery.
 Edward C. Sewall, M.D., Assistant Professor of Ophthalmology.
 F. F. Fitzgerald, M.D., Assistant Professor of Chemistry.

Assistants and Instructors:

Henry Harris, M.D.
 M. E. Rumwell, M.D.
 W. R. Dorr, M.D.

E. Schmoll, M.D.
 Frank Fischer, M.D.
 Walter H. Winterberg, M.D.

1908-1909: (continued)

T. G. Inman, M.D.
David Hadden, M.D.
J. B. Frankenheimer, M.D.
W. R. P. Clark, M.D.
D. R. Smith, M.D.
J. L. Howard, M.D.
Herbert Gunn, M.D.
Morton R. Gibbons, M.D.
Langley Porter, M.D.
E. D. Chipman, M.D.
R. E. Peck, M.D.
H. Spiro, M.D.
Millicent Cosgrave, M.D.
F. E. Raynes, M.D.
R. S. Martin, M.D.
C. L. Powers, M.D.

David Friedlander, M.D.
Shadworth O. Beasley, M.D.
F. P. Topping, M.D.
Henry W. Gibbons, M.D.
R. K. Smith, M.D.
Sol. Hyman, M.D.
A. J. Remmel, M.D.
R. W. Preston, M.D.
G. B. Wilson, M.D.
Howard Somers, M.D.
Adolph Berg, M.D.
L. S. Mace, M.D.
H. I. Wiel, M.D.
A. L. Fisher, M.D.
A. B. McConnell, M.D.

IV. STANFORD SCHOOL OF MEDICINE

Nucleus of Medical Faculty was chosen on October 30, 1908:

Those already on the Stanford Faculty:

John Maxson Stillman, Professor of Chemistry.
 Oliver Peebles Jenkins, Professor of Physiology.
 Arthur William Meyer, Professor of Human Anatomy.
 Frank Mace McFarland, Associate Professor of Histology.
 George Clinton Price, Associate Professor of Zoology.
 William Freeman Snow, Associate Professor of Hygiene.
 Robert Eckles Swain, Associate Professor of Chemistry.

Those already on the Cooper Medical Faculty:

Adolph Barkan, Professor of Structure and Diseases of
 the Eye, Ear, and Larynx.
 Henry Gibbons, Jr., Professor of Obstetrics.
 Jos. O. Hirschfelder, Professor of Clinical Medicine.
 Stanley Stillman, Professor of Surgery.
 Emmet Rixford, Professor of Surgery.
 William Ophuls, Professor of Pathology.
 William Fitch Cheney, Clinical Professor of Diseases of
 the Digestive System.

The only outside appointment:

Ray Lyman Wilbur, Professor of Clinical Medicine.

1910-1911:

Same as the above Faculty except for the following
 changes:

Promotions:

Frank M. McFarland, Professor of Histology.
 George C. Price, Professor of Zoology.

Additions:

Albert Cornelius Crawford, Professor of Pharmacology.
 Hans Zinsser, Associate Professor of Bacteriology.

Members of the Teaching Staff not Members of the Faculty
 of the Department of Medicine:

James Rollin Slonaker, Assistant Professor of Physiology.

1910-1911: (continued)

Clara S. Stoltenberg, Assistant Professor of Physiology.
 Frank Ellsworth Blaisdell, Assistant Professor of Applied
 Anatomy.
 Ernest Charles Dickson, Assistant Professor of Pathology.
 Ruskin M. Lhamon, Instructor in Anatomy.
 Georgina Spooner, Assistant.

1911-1912:

Adolph Barkan, Professor of Structure and Diseases of the
 Eye, Ear, and Larynx, Emeritus after March 31, 1911.
 Henry Gibbons, Jr., Professor of Obstetrics. (Deceased
 September 27, 1911.)
 Jos. O. Hirschfelder, Professor of Clinical Medicine.
 Stanley Stillman, Professor of Surgery.
 Emmet Rixford, Professor of Surgery.
 William Ophuls, Professor of Pathology.
 Ray Lyman Wilbur, Professor of Medicine.
 Oliver P. Jenkins, Professor of Physiology and Histology.
 John M. Stillman, Professor of Chemistry.
 Arthur W. Meyer, Professor of Human Anatomy.
 Frank M. McFarland, Professor of Histology.
 George C. Price, Professor of Zoology.
 Albert C. Crawford, Professor of Bacteriology.
 Hans Zinsser, Professor of Bacteriology.
 Robert E. Swain, Professor of Physiological Chemistry.
 William F. Cheney, Clinical Professor of Medicine.
 William F. Snow, Clinical Professor of Hygiene and Public
 Health. (On leave, 1911-1912).
 Clara S. Stoltenberg, Associate Professor of Physiology.

Additional Members of the Teaching Staff:

James R. Slonaker, Assistant Professor of Physiology.
 Frank E. Blaisdell, Assistant Professor of Applied Anatomy.
 Ernest C. Dickson, Assistant Professor of Pathology.
 Thomas Addis, Assistant Professor of Medicine.
 Ruskin M. Lhamon, Instructor in Anatomy.
 Frank Walter Weymouth, Instructor in Physiology.
 James Eaves, Instructor in Surgery.

APPENDIX B

ENTRANCE REQUIREMENTS

I. Medical Department of the University of the Pacific:

1858 through 1864:

During these years there were no strict entrance requirements. A high school education was preferred, but applicants would be admitted after a successful interview with the Dean.

In order to better prepare the student for his medical studies the Faculty offered a gratuitous preliminary course of lectures annually.

1865 through 1869:

Period of suspension.

1870 through 1871:

Same as 1864.

II. Medical College of the Pacific:

1872 through 1880:

Same as 1871.

1881 through 1882:

In carrying out the plan of a three-years' curriculum, it was determined to require a matriculating examination, or other evidence of the possession of at least a fair English education, with the expectation of making such an examination more complete as the future might determine.

III. Cooper Medical College:

1883 through 1890:

No student will be admitted to the curriculum who has not attained the age of eighteen years.

All applicants for admission, except such as pos-

sess the qualifications hereinafter described, must pass a matriculating examination.

Graduates of literary, scientific, medical, or pharmaceutical colleges or universities, in good standing, graduates of high schools, and applicants who have passed the examination for admission to any recognized literary college or university, or who hold first grade certificates from any Public School Board, as properly qualified teachers shall, on producing proper evidence of the same, be admitted to matriculation without examination.

The examination will be practical rather than technical, its object being to determine the candidate's general knowledge and natural capacity, and whether his previous acquirements have been sufficient to enable him to pursue the study of medicine to advantage.

The candidate will be examined in the following branches:

A. English Composition. He will be asked to write a short composition on some selected subject.

B. Physics. He will be questioned upon elementary philosophy, such as may be found in Avery's Physics, Parker's Philosophy, etc.

C. Arithmetic. He will be questioned on this branch.

D. Latin. He will be exercised in the declension of nouns and in Latin grammar. A scholastic knowledge of this branch is not required or considered essential, but since Latin is the language of Science, its technical names being largely drawn from this source, a knowledge of it must facilitate the matriculant's studies, and it seems proper that he should have at least an elementary acquaintance with it. Should the student not possess this knowledge on entering, he will not be rejected, but will be accepted conditionally upon his qualifying himself by the beginning of the second term.

1891:

Same as 1890 except that the examination on the English language would include Grammar as well as Composition.

1892:

Same as 1891 except that the examination on Arithmetic would include common and decimal fractions.

1893 through 1896:

All applicants for admission must give satisfactory evidence of good moral character, and possess the qualifications hereinafter specified:

A diploma or certificate of graduation from some recognized medical, pharmaceutical or dental school; or from a recognized high or normal school; or a certificate of having passed examination for admission to any recognized literary college or university; or a first grade diploma or certificate from any recognized public school board, provided that these qualifications are shown to be equivalent to the requirements of this College for its matriculating examination. Those not possessing any of the foregoing qualifications will be required to pass a matriculating examination in the following subjects.

1. English, including Grammar and Composition.
2. Universal History.
3. Descriptive Geography.
4. Arithmetic, including common and decimal fractions.
5. Elementary Physics.
6. Latin, including grammar and translations.

(Students who fail in this latter requirement will be accepted conditionally upon qualifying themselves by the beginning of the ensuing term. A Latin course is provided at the College).

7. One of the following optional subjects, viz:
 - (a) Greek; first chapter of St. John's Gospel.
 - (b) French; first chapter of Telemaque.
 - (c) German; Adler's Reader, first part.
 - (d) Logic.
 - (e) Botany.
 - (f) Zoology.
 - (g) Elementary Chemistry.

1897 through 1899-1900:

Same as 1896 except that United States History was required instead of Universal History.

1900-1901 and 1901-1902:

Same as 1899-1900 except for the following:

For the courses beginning August 15, 1900, and August 15, 1901, the requirements will remain as heretofore, except that no examinations for admission will be conducted by this College. Instead thereof a certificate will be accepted from the principal of a high school or any college

1900-1901 and 1901 - 1902: (continued)

or academy accredited to the universities, before whom the applicant has passed examination in the subjects specified. The charge for such examination will be \$5, to be paid to the examiner.

1902-1903:

1. Evidence of good moral character.
2. One of the following qualifications:

(a) A certificate showing that the applicant has passed the regular examinations for admission to Stanford University, the University of California, or any other university or college whose standard of admission is equivalent; provided that students deficient in Latin may be allowed one year to make up such deficiency.

(b) A certificate of graduation from a high school or academy accredited by the above universities.

(c) A certificate of graduation from a normal school of the State of California.

A knowledge of Chemistry and Physics equivalent to that required for entrance to the State University, in the Colleges of Science, will be insisted upon in all applicants.

1903-1904 through 1905-1906:

1. A certificate showing that the applicant has passed the examinations for admission to Stanford University or the University of California or any other university whose standard of admission is equivalent.

2. Evidence of graduation from a high school, academy or preparatory school accredited by the above named universities or from high schools of equal standing in other States.

3. A certificate of graduation from a normal school of the State of California or other State.

4. A certificate in detail from the principal of an accredited high school, academy or preparatory school showing that the applicant has fulfilled the requirements for entrance to one of the above specified universities.

A knowledge of Chemistry and Physics equivalent to that required for entrance to Stanford University and the University of California in the Colleges of Science will be insisted upon in all applicants.

At least two years of Latin is desired of all applicants, though students will be admitted without it on the condition that they take the course in Medical Latin provided by the College during their first year.

1906-1907:

Same as 1905-1906 except the fourth requirement as given above was dropped. Also it was requested that the student's pre-medical subjects should include English, Physics, Chemistry, Biology, Histology, Latin, and French or German.

1907-1908 and 1908-1909:

1. A Bachelor's Degree from an approved college or university.

2. A certificate showing that the applicant has passed the examinations for admission to Stanford University or the University of California, or any other university whose standard of admission is equivalent.

3. A diploma or certificate of graduation from a high school, academy or preparatory school accredited by the above-named universities, or from high schools of equal standing in other States.

4. A certificate of graduation from a normal school of the State of California or other State whose standard is equivalent.

The diploma from high school, normal school or academy shall require for graduation not less than four years of study embracing not less than two years (4 points) of Latin, two years (4 points) of mathematics, two years (4 points) of English, one year (2 points) of history, two years (4 points) of laboratory science, and six years (12 points) of further credit in language, literature, history or science.

One point in any subject in a high school or academy course demands not less than five periods per week of forty-five minutes each for eighteen weeks, and is equivalent to half a "credit" of our universities. That is, "15 credits" of our universities are equivalent to "30 points."

No examinations for admission are held at the college.

A knowledge of Chemistry and Physics equivalent to that required for entrance to Stanford University or the University of California in the Colleges of Science will be insisted upon in all applicants.

Prospective students of medicine are advised to take a preliminary course of instruction at a university. The subjects taken up during that time should include English, Physics, Chemistry, Biology, Histology, Latin, and French or German. Students who have pursued such a course with satisfactory standing will be credited with those subjects taken, which are the equivalent of similar subjects in the curriculum of Cooper Medical College.

IV. Stanford School of Medicine:

1909:

1. Three years of collegiate work in Stanford University (approximately ninety unit hours), or its equivalent as accepted by the Committee on Advanced Standing, will be required for admission to the course in Medicine.

2. The preparatory course must include one year of Physics, Chemistry, and Physiology or Biology, with laboratory work in each, and French or German (such a reading knowledge as shall be acceptable to the Department of Medicine).

3. According to the State law the student must also meet the requirements of the Association of American Medical Colleges which prescribes that the preparatory course shall have included two years of Latin, two years of Mathematics, two years of English, one year of history, two years of laboratory science, and six years of further credits in languages, literature, history, or science.

1910-1911:

Same as 1909 plus the following:

Candidates who are deficient in any of the specified subjects may be admitted only when they can satisfy the Committee on Academic Matters of their ability to make good this deficiency in connection with the regular work of the curriculum.

Also the requirement of one year of Chemistry with laboratory work must include Qualitative Analysis.

1911-1912:

Same as 1910-1911 except that the two years of Latin, as required by the Association of American Medical Colleges, could now be replaced by four years of high-school German or French, or its equivalent, provided that a satisfactory examination was passed in the elements of Latin grammar.

1912-1913:

Same as 1911-1912 except that the provision for students registering with deficiencies was changed to read as follows:

1912-1913: (continued)

Candidates for admission to the Department of Medicine or for advanced standing in the Department, are permitted to register with one condition, but the condition must be removed within one year to the satisfaction of the head of the Department or Division in which the condition was incurred.

There was also a note to the effect that the candidates for licensure possessing a baccalaureate degree are not required to present certificates for Latin by the Board of Medical Examiners of the State of California at this time.

1913-1914:

Same as 1912-1913 except the Association of American Medical Colleges changed their two years of laboratory science to one year of Physics. This made no change in the Stanford requirements, however, which already included one year of Physics, Chemistry, and Physiology or Biology, with laboratory work in each.

1914-1915 through 1916-1917:

1. Three years of collegiate work in Stanford University (approximately ninety unit hours), or its equivalent as accepted by the Committee on Advanced Standing.

2. The preparatory course must include one year of Physics, Chemistry including Qualitative Analysis, and Physiology or Biology, with laboratory work in each, and such a reading knowledge of French or German as shall be acceptable to the School of Medicine. It is recommended that a lecture and laboratory course be taken in Psychology.

3. According to the State law the student must also meet the requirements of the Association of American Medical Colleges which prescribes that the applicants must show records of a preliminary preparation of a high school course or specified equivalent.

4. Candidates for admission are permitted to register with one condition, but the condition must be removed within one year to the satisfaction of the head of the School or Division in which the condition was incurred.

1917-1918:

Same as 1916-1917 except for the following changes:

The Four-Quarter System was introduced at Stanford.

1917-1918: (continued)

Quantitative Analysis was now required in addition to Qualitative Analysis.

Candidates were still allowed admission with one condition except in the eight hours of Chemistry as prescribed by the Association of American Medical Colleges.

1918-1919 through 1920-1921:

1. Graduation from high school (or its equivalent), comprising fifteen recommended units, as defined by the University for admission to the Freshman Class. (Special Students not admitted to registration in Medicine.)

2. Three full years of college work, totaling 90 semester or 135 quarter units, of a grade equivalent to that of Leland Stanford Junior University. The required work in these three years is that laid down by the Association of American Medical Colleges in Physics, Chemistry, and Biology, together with a reading knowledge of either French or German, and additional work in Chemistry as indicated below.

3. In addition to the Association of American Medical Colleges minimum in Chemistry the University requires Qualitative and Quantitative Analysis and Organic Chemistry.

No conditions are permitted. Candidates for admission who in June, 1918, will have completed the above requirements except for a few units in collegiate subjects should plan to make up these deficiencies in full by attendance at summer sessions during the summer of 1918.

The French or German Reading Knowledge varies somewhat with the ability of the student, but implies at least the equivalent of a year's work of 15 quarter units.

1921-1922 through 1924-1925:

1. Graduation from high school (or its equivalent), comprising fifteen recommended units, as defined by the University for admission to the Freshman Class. (Special Students are not admitted to registration in Medicine.)

2. Three full years of college work, totaling 135 quarter units (90 semester units), of a grade equivalent to that of Leland Stanford Junior University (counting as many grade points as there are units). The required work in these three years is that laid down by the Association of American Medical Colleges in Physics, Chemistry, Biology,

1921-1922 through 1924-1925: (continued)

and English, together with a reading knowledge of either French or German, and additional work in Chemistry and Biology.

3. In addition to the Association of Americal Medical Colleges minimum in Chemistry the University requires Qualitative and Quantitative Analysis and Organic Chemistry.

4. In Biological Science the University requires 15 quarter units, or 10 semester units, made up of courses in General Zoology (or General Biology), Comparative Anatomy of the Vertebrates, and General Vertebrate Embryology, substantially equivalent to the courses in those subjects given at Stanford University.

No conditions are permitted.

1925-1926:

Same as 1924-1925 except that the A.A.M.C. now also required Organic Chemistry so that the third requirement now read as follows:

3. In addition to the A.A.M.C. minimum in Chemistry, the University requires Qualitative and Quantitative Analysis.

1926-1927 through 1931-1932:

Same as 1925-1926 except that the A.A.M.C. now also required Qualitative Analysis so that the third requirement now read as follows:

3. In addition to the A.A.M.C. minimum in Chemistry, the University requires Quantitative Analysis.

1932-1933 through 1933-1934:

The first-year class in the School of Medicine is limited to fifty students, selection being made on the basis of scholarship and promise from those applicants who fulfill the following requirements:

1. Graduation from high school (or its equivalent), comprising fifteen recommended units, as defined by the University for admission to the Lower Division. (Special students are not admitted to registration in Medicine.)

2. Three full years of college work, totaling 135

1932-1933 through 1933-1934: (continued)

quarter units, or an equivalent number of semester units, with an average grade of C as defined by Stanford University, where the grading scale includes A, B, C, and D as passing grades.

3. Completion of certain subject requirements which include those adopted by the Association of American Medical Colleges. The following courses at Stanford meet those requirements, and equivalent courses are accepted from other institutions:

(a) Chemistry: (23 quarter units or 15 semester units.)

General Inorganic Chemistry, 12 units.

Quantitative Analysis, 5 units.

Organic Chemistry, 6 units.

(b) Physics: (13 quarter units or 8 semester units.)

Mechanics and Heat, 4 units.

Electricity, 4 units.

Modern Physics, 3 units.

Elementary Optics, 2 units.

(c) Biology: (15 quarter units or 10 semester units.)

Zoology, General, 5 units.

Comparative Anatomy of Vertebrates, 5 units.

Mammalian Embryology or Comparative Embryology, 5 units.

(d) English: (9 quarter units or 6 semester units.)

(e) Foreign Language: (Usually 24 quarter units.)

A reading knowledge of French or German is required. This may be satisfied by passing an examination or by completing two years of college courses.

4. The Medical Aptitude Test prepared by the American Medical Association and required of all new students. Applicants are advised to take this test at the time it is given in the various colleges throughout the United States, during the year prior to application for admission to the School of Medicine. (Details will be furnished on request.)

No conditions are permitted.

1934-1935 through 1942-1943:

1. Graduation from high school or its equivalent. (Special students are not admitted to registration in medicine.)

2. Completion of 135 quarter units (or an equivalent number of semester units), with an average grade of

1934-1935 through 1942-1943: (continued)

C as defined by Stanford University, where the grading scale includes A, B, C, and D as passing grades.

3. Completion of certain subject requirements which include those adopted by the Association of American Medical Colleges. The following courses at Stanford University meet these requirements, and equivalent courses are accepted from other institutions:

- (a) Chemistry: (22 quarter units.)
 General Inorganic Chemistry, 12 units.
 Quantitative Analysis, 4 units.
 Organic Chemistry, 6 units.
- (b) Physics: (13 quarter units.)
 Mechanics and Heat, 4 units.
 Electricity, 4 units.
 Atomic Physics, 3 units.
 Elementary Optics, 2 units.
- (c) Biology: (15 quarter units.)
 Structure: Invertebrates, 4 units.
 Structure: Vertebrates, 4 units.
 Mammalian and Human Embryology, 4 units, or
 Embryology, 4 units.
 Electives, 3 units.
- (d) English: (9 quarter units.)
- (e) Foreign Language: (Usually 21 quarter units.)

A reading knowledge of French or German is required. This may be satisfied by passing an examination or by completing the second quarter of second-year University reading courses.

4. The Medical Aptitude Test prepared by the Association of American Medical Colleges and required of all new students. Applicants are advised to take this test at the time it is given in the various colleges throughout the United States during the year prior to application for admission to the School of Medicine.

Applicants should arrange to interview at least three members of the Medical Admission Committee or Regional Representatives sometime in January or February.

No conditions are permitted.

1943-1944:

The first-year class in the School of Medicine is limited to sixty students and is also subject to terms of the agreement pending with the armed services. Selection is made on the basis of scholarship and promise from those applicants who fulfill the following requirements:

1943-1944: (continued)

1. Graduation from high school or its equivalent. (Special Students are not admitted to registration in medicine.)

2. Completion of not less than six quarters or four semesters of University work, totaling 110 quarter units or 74 semester units, with an average grade of C as defined by Stanford University, where the grading scale includes A, B, C, and D as passing grades.

3. Completion of certain subject requirements which include those adopted by the Association of American Medical Colleges. The following courses at Stanford University meet these requirements, and equivalent courses are accepted from other institutions:

(a) Chemistry: (22 quarter units.)

General Inorganic Chemistry, 12 units.

Quantitative Analysis, 5 units.

Organic Chemistry, 6 units.

(b) Physics: (13 quarter units.)

Mechanics and Heat, 4 units.

Electricity, 4 units.

Atomic Physics, 3 units.

Elementary Optics, 2 units.

(c) Biology: (15 quarter units.)

Structure: Invertebrates, 4 units.

Structure: Vertebrates, 4 units.

Mammalian and Human Embryology, 4 units: or Embryology, 4 units.

Electives, 3 units.

(d) English: (9 quarter units.)

(e) Either Mathematics or Foreign Language:

(1) Eleven quarter units of mathematics taken in college.

(2) A reading knowledge of German or French.

This may be satisfied by passing an examination or by completing the second quarter of second-year University reading courses (usually 21 quarter units.)

4. The Medical Aptitude Test prepared by the Association of American Medical Colleges and required of all new students. Applicants are advised to take this test at the time it is given in the various colleges throughout the United States during the year prior to application for admission to the School of Medicine.

Applicants should arrange to interview at least three members of the Medical Admission Committee or Regional Representatives.

No conditions are permitted.

1944-1945:

Same as 1943-1944 except that it was stated that the majority of the sixty students taken into the first-year class in medicine would be assigned directly by the Army and Navy. Those not assigned by the Army and Navy would be filled from those ineligible for military service by the Medical Admission Committee.

APPENDIX C

GRADUATION REQUIREMENTS

I. Medical Department of the University of the Pacific
1859 through 1864:

1. Candidate must be of good moral character, and at least twenty-one years of age.
2. He must have attended two full courses of lectures in some regular and recognized medical school, one of which shall have been at this institution.
3. He must have studied medicine for not less than three years, and have attended at least one course of clinical instruction in an approved institution.
4. He must present a thesis on some medical subject in his own handwriting, and of his own composition to the Dean of the Faculty.
5. He must exhibit to the Faculty, at his examination, satisfactory evidence of his professional attainments.
6. The candidate must attend the public commencement unless excused by the Faculty.

1870 through 1871:

1. The candidate must be 21 years of age.
2. He must have attended two full Courses of Medical Lectures, one of which must have been delivered in this institution.
3. He must have attended at least one Course of Practical Anatomy in the Dissecting Room.
4. The candidate must have studied Medicine for three years, (the terms of attending Lectures included) under the direction of a respectable practitioner.
5. He must write a Medical Thesis, and submit the same to the Faculty, two weeks prior to the Commencement.
6. Graduates from other Medical Colleges in good standing, are required to matriculate only.

II. Medical College of the Pacific

1872 through 1876:

Same as for 1871.

1877 through 1878:

Same as 1871 except for the following addition:

1877 through 1878: (continued)

Those desiring the ad eudem degree are required, in addition, to present satisfactory testimonials of character and professional standing, to submit to examination in the practical branches, and to pay a fee of fifty dollars.

1879:

1. The candidate must be of good moral character, and at least twenty-one years of age.

2. He must have attended three Regular Courses of Medical Lectures, one of which must have been delivered in this institution.

3. He must have attended at least one Course of Practical Anatomy in the dissecting-room.

4. He must write a Medical Thesis, and submit the same to the Faculty two weeks prior to the Commencement.

Graduates from other Medical Colleges in good standing, are required, in addition, to present satisfactory testimonials of character and professional standing, to submit to examination in the practical branches, and to pay a fee of fifty dollars.

1880 through 1881:

Same as 1879 except for the addition of a fifth requirement which read as follows:

5. He must have successfully passed the examinations required by the Faculty, and have paid all fees due the college.

Also the third requirement was lengthened, and it now stated that in the Course of Practical Anatomy the student must present evidence of having dissected the entire subject.

1882:

Same as 1881 except that the second requirement now read as follows:

2. He must have attended three Regular Course of Medical Lecture, one of which must have been delivered in this institution, and two courses of Clinical Instruction. Attendance upon the Winter or Intermediate Course alone will not fill the conditions of this requirement.

III. Cooper Medical College

1883 and 1884:

1. The candidate must be of good moral character, and at least twenty-one years of age.

2. He must have attended three Regular Courses of Medical Lectures, one of which must have been delivered in this institution, and two courses of Clinical Instruction. Attendance upon the Winter or Intermediate Course alone will not fill the conditions of this requirement.

3. He must have attended at least one Course of Practical Anatomy in the Dissecting-room, and present evidence of having dissected the entire subject.

4. He must write a Medical Thesis, and submit the same to the Faculty on about two weeks before commencement. It is recommended that the thesis be based upon cases actually observed and studied by the student at the college and Hospital Clinics.

5. He must have successfully passed the examinations required by the Faculty, and have paid all fees due the College.

Graduates from other Medical Colleges in good standing, are required to matriculate only. Those desiring the ad eundem degree are required, in addition, to present satisfactory testimonials of character and professional standing, to submit to examination in the practical branches, and to pay a fee of fifty dollars.

1885 through 1892:

Same as 1884 except that the student must now attend the Intermediate Course of his third year. This new requirement was to go into effect after 1885.

1893 through 1898:

1. The candidate must be of good moral character, and at least twenty-one years of age.

2. He must have attended, after 1893, four Regular Courses of Medical Lectures (unless admitted to the second year on account of previous certified study), the last of which, at least, must have been delivered in this institution; also two courses of clinical instruction, and the short term of his last year.

3. He must have attended at least two Courses of

1893 through 1898: (continued)

~~Practical~~ Practical Anatomy in the Dissecting-room, and present evidence of having dissected at least one entire subject (five parts).

4. He must write a Medical Thesis, and submit the same to the Faculty, on or before the 1st of October. It is recommended that the thesis shall be based upon cases actually observed and studied by the student at College and Hospital Clinics. A committee, consisting of Professors Lane, Gibbons and Steele, has been appointed to direct the preparation of the thesis.

5. He must have passed successfully the examinations required by the Faculty, and have paid all fees due the College.

Graduates from recognized medical colleges, desiring to take the degree of Cooper College also, are required to present satisfactory testimonials of good character and professional standing; to adduce satisfactory evidence that their previous attendance upon lectures and clinics has been equivalent to that required of the Senior class of this College; to attend the lectures and clinics of the Senior class; to pass examinations in all branches, and to pay the regular fees.

1899 and 1899-1900:

Same as 1898 except that the two courses of clinical instruction and the short term of the last year, as given in requirement 2, were no longer required.

1900-1901 through 1902-1903:

1. The candidate must be of good moral character, and at least twenty-one years of age.

2. He must have attended four Regular Courses of Medical Lectures (unless admitted to the second year on account of previous certified study), the last of which, at least, must have been delivered in this institution.

3. He must have attended at least two Courses of Practical Anatomy in the dissecting-room, and present evidence of having dissected at least one entire subject (five parts).

4. He must write a Medical Thesis, and submit the same to the Faculty, together with the graduating fee, on or before the 15th of March. It is recommended that the thesis shall be based upon cases actually observed and studied by the student at College and Hospital Clinics.

1900-1901 through 1902-1903: (continued)

5. He must have passed successfully the examinations required by the Faculty, and have paid all fees due the College.

Graduates from recognized medical colleges, etc.....
(same as 1898).

1903-1904 through 1906-1907:

1. The candidate must be of good moral character and at least twenty-one years of age.

2. He must have attended four regular courses of medical instruction in four separate years, the last of which at least must have been in this institution.

3. He must have attended at least two courses of medical Anatomy in the dissecting room, and present evidence of having dissected at least one entire subject.

4. He must write an acceptable thesis on some medical subject and submit the same to the Faculty on or before the 15th of March.

5. He must have passed successfully all the final examinations and must have attended the practical instruction in all departments.

6. He must have paid in full all fees.

1907-1908 and 1908-1909:

1. The candidate must be of good moral character, and at least twenty-one years of age.

2. He must have attended four regular courses of medical instruction in four separate years, the last of which at least must have been in this institution.

3. He must have prepared an acceptable paper on some medical subject, to be submitted at the stated meetings provided for.

4. He must have passed successfully all the final examinations and must have attended the practical instruction in all departments.

5. He must have paid in full all fees.

IV. Stanford School of Medicine

1910-1911:

1. Candidate must be twenty-one years of age, of good moral character, and have shown exemplary conduct while a student in the department of medicine.
2. He must have been enrolled and have attended a recognized medical college for four years, the last of which must have been in this institution.
3. He must have satisfactorily completed the required curriculum, and passed all examinations.
4. He must have paid in full the required fees.

1911-1912 through 1913-1914:

Same as 1910-1911 except for the following additions:

5. He must have fulfilled the entrance requirements of the Medical Department of Stanford University before enrolling as a medical student.
6. A thesis based as much as feasible upon research work will be required of each student. Four curriculum hours of the seventh and eighth semesters are to be devoted to its preparation under the supervision of one of the divisions.

1914-1915 through 1916-1917:

Same as 1913-1914 except that the candidate was now required to have spent the last two years of the five years in Medicine at the University. (The fifth year being the interne year which was now compulsory before the M.D. degree would be issued.)

1917-1918 through 1930-1931:

1. Candidate must have attained the age of twenty-one years.
2. He must have attended a recognized medical college for four years, and must have spent the last three quarters preceding the interne year at the University.
3. He must have fulfilled the entrance requirements of the Stanford University School of Medicine before enrolling as a medical student.
4. He must have satisfactorily completed the required curriculum, and passed all examinations.
5. He must have paid in full the required fees.

1917-1918 through 1930-1931: (continued)

6. He must write a thesis based as much as feasible upon research work. If the thesis is not completed previously, four curriculum hours in each of the last three quarters are to be devoted to its preparation under the supervision of one of the Heads of Divisions.

Physicians who have already received the degree of Doctor of Medicine or who have been licensed to practice medicine are not received as candidates for this degree by the Stanford University School of Medicine.

1931-1932 through 1944-1945:

Same as 1930-1931 except that the thesis requirement was dropped.

APPENDIX D

SOME OF THE EARLY TEXTBOOKS USED

I. Medical Department of the University of the Pacific

1880:

- Pathology and Principles and Practice of Medicine: Williams' Pathology; Watson's Lectures; Bell and Stokes' Practice; Wood's Practice.
- Chemistry: Fownes Chemistry; Turner's Chemistry; Silliman's Chemistry.
- Physiology: Dunglison's Human Physiology; Kirke's and Paget's Physiology.
- Anatomy: Wilson's Anatomy; Dublin Dissector; Tuson's Dissector.
- Surgery: Cooper's Lectures by Tyrell; Erichsen's Science and Art of Surgery; Hasting's Surgery; Pancoast's Operative Surgery.
- Obstetrics and Diseases of Women and Children: Meigs' Obstetrics; Ramsbotham of Parturition; Tucker's Midwifery; J.F. Meigs on the Diseases of Children; Churchill on Diseases of Children.
- Materia Medica and Pharmacy; U.S. Dispensatory; Pereira's Elements of Materia Medica; Wood's Therapeutics and Pharmacology.
- Medical Jurisprudence: Taylor's Medical Jurisprudence by Hartshorne; Beck's Elements of Medical Jurisprudence.

1871:

- Anatomy: Gray; Wilson; Leidy; Sharpey & Quain.
- Surgery: Billroth; Gross; Erichsen; Packard.
- Practice of Medicine: Flint; Niemeyer; Aitken; Tanner; Watson; Wood.
- Clinical Medicine and Diagnosis: DaCosta; Bennett; Gairdner.
- Physiology: Dalton; Flint; Draper; Marshall; Kirkes.
- Chemistry: Miller; Fownes; Williamson; Barker.
- Practical Chemistry: Valentin; Odling.
- Toxicology: Taylor; Wormley.
- Obstetrics: Bedford; Cazeaux; Churchill; Meigs.
- Diseases of Women: Thomas; Hewitt; Byford.
- Diseases of Children: West; Smith; Holmes; Vogel, Hillier.
- Materia Medica and Therapeutics: Stille; Pereira (by Wood); Biddle; Headland; U.S. Dispensatory; Ringer.

1871: (continued)

Ophthalmology: Wells; Stellwag; Williams; Dixon.

Otology: Troltsch.

Diseases of the Skin: Wilson; Nelligan; Hillier.

Pathology: Virchow; Paget; Rokitansky.

Miscellaneous: Dunglison's Medical Dictionary; Bumstead,
on Venereal Diseases; Murchison, on the Liver;
Hamilton, on Fractures and Dislocations; Cullerier's
Atlas of Venereal Diseases, (Bumstead).

II. Medical College of the Pacific.

1877:

Anatomy: Gray; Wilson; Leidy; Sharpey & Quain.
 Surgery: Holmes; Hamilton; Gross; Erichsen.
 Surgical Pathology: Billroth; Paget.
 Practice of Medicine: Flint; Hartshorne; Watson; Wood;
 Niemeyer; Aitken; Tanner.
 Clinical Medicine and Diagnosis: DaCosta; Bennett; Gairdner.
 Physiology: Dalton; Flint; Draper; Marshall; Kirkes.
 Chemistry: Barker; Roscoe; Attfield, Fownes.
 Toxicology: Taylor; Wormley.
 Obstetrics: Leishman; Bedford; Meadows; Cazeaux; Churchill.
 Diseases of Women: Thomas; Hewitt; Byford.
 Diseases of Children: Meigs & Pepper; West; Smith; Holmes;
 Vogel; Hillier.
 Materia Medica and Therapeutics: Biddle, H.C. Wood; Stille;
 Pereira (by Wood); Headland; U.S. Dispensatory;
 Ringer.
 Ophthalmology: Wells; Stellwag; Lawson.
 Otology: Troeltsch; Roosa.
 Diseases of the Skin: Neumann; Wilson; Nelligan; Hillier;
 Tilbury Fox.
 Pathology: Green; Virchow; Rokitansky; Rindfleisch.
 Miscellaneous: Same as for 1871.

1882:

Anatomy: Gray; Wilson; Leidy.
 Surgery: Bryant; Gross; Erichsen.
 Surgical Pathology: Billroth; Paget.
 Practice of Medicine: Flint; Hartshorne; Bristowe; Bartholow.
 Clinical Medicine and Diagnosis: DaCosta; Loomis.
 Physiology: Dalton; Flint; Carpenter.
 Chemistry: Fownes; McAdam, Attfield.
 Toxicology: Wormley; Taylor.
 Microscopy: Wythe; Beale; Fry; Carpenter.
 Obstetrics: Leishman, Meadows, Cazeaux, Playfair; Barkers'
 Puerperal Diseases.
 Diseases of Women: Thomas; Emmet; Barnes.
 Diseases of Children: Meigs & Pepper; West; Smith; Holmes.
 Materia Medica and Therapeutics: Bartholow; Farquharson;
 H.C. Wood; Stille; U.S. Dispensatory; Ringer.
 Ophthalmology: Wells; Stellwag; Lawson.
 Otology: Roosa; Troeltsche.
 Diseases of the Skin: Tilbury Fox; Duhring; Neuman.

1882: (continued)

Diseases of the Skin: Tilbury Fox; Duhring; Neuman.

Pathology: Wagner; Rindfleisch, Orth.

Miscellaneous: Same as 1877 with the addition of Taylor's
Medical Jurisprudence.

III. Cooper Medical College, 1883 through 1912.

1887:

Anatomy: Gray; Holden.
 Surgery: Bryant.
 Surgical Pathology: Billroth.
 Practice of Medicine: Reynolds.
 Clinical Medicine and Diagnosis: DaCosta; Loomis.
 Physiology: Dalton; Carpenter.
 Chemistry: Witthaus' Students' Manual.
 Toxicology: Wormley.
 Microscopy: Wythe; Beale; Klein.
 Obstetrics: Leishman; Luck; Playfair; Barnes.
 Diseases of Women: Thomas; Emmet.
 Diseases of Children: Meigs and Pepper; Smith.
 Materia Medica and Therapeutics: H.C. Wood; Biddle.
 Ophthalmology: Neggleship; Juler.
 Otology: Roosa.
 Diseases of the Skin: Tilbury Fox; Duhring.
 Pathology: Wagner; Rindfleisch.
 Miscellaneous: Thomas' Medical Dictionary; Bumstead or
 Keys on Venereal Diseases; Woodman & Tidy's or
 Taylor's Medical Jurisprudence; Legg's Urinary
 Analysis.

1892:

Anatomy: Gray; Holden; Potter's Quiz Compend; Heath.
 Surgery; Bryant.
 Surgical Pathology: Billroth.
 Practice of Medicine: Hughes' Compend; Flint; Loomis.
 Clinical Medicine and Diagnosis: Finlayson; DaCosta;
 Abrams.
 Physiology: Landois.
 Chemistry: Witthaus' Students' Manual.
 Toxicology: Wormley.
 Microscopy: Wythe; Beale; Klein.
 Obstetrics: Leishman; Luck; Playfair; Barnes.
 Diseases of Women: Thomas; Emmet.
 Diseases of Children: J. Lewis Smith; Eustace Smith; Vogel.
 Materia Medica and Therapeutics: H.C. Wood (8th edition);
 Potter.
 Ophthalmology: Nettleship; Juler.
 Otology: Roosa.
 Laryngology: Schech.
 Diseases of the Skin: Tilbury Fox; Duhring.
 Pathology: Wagner; Rindfleisch.
 Miscellaneous: Thomas' Medical Dictionary; Gould's Medical
 Dictionary; Van Buren & Keyes; Otis or Bumstead on
 Venereal Disease; Woodman & Tidy's or Taylor's
 Medical Jurisprudence; Legg's Urinary Analysis;

1892: (continued)

Pepper's System of Medicine.

1897:

Anatomy: Gray; Morris; Holden.
 Surgery: Treatise on Surgery; Mansell Moullin; Surgery of the Head and Neck, L.C. Lane.
 Surgical Pathology: Billroth; Warren.
 Principles and Practice of Medicine: Strumpell; Csler.
 For Reference: Quain's Dictionary of Medicine; Fowler's Dictionary of Medicine.
 Clinical Medicine and Diagnosis: Musser; DaCosta; Abrams.
 Physiology: Landois; Foster.
 Chemistry: Witthaus' Students' Manual; Essentials of Medical Chemistry; Medical Chemistry and Chemical Analysis, Platt.
 Toxicology: Wormley.
 Microscopy: Wythe; Beale; Klein.
 Obstetrics: Lusk; Davis; Playfair; Parvin; Grandin and Jarman.
 Diseases of Women: Garrigues; Skene; Thomas and Munde.
 Diseases of Children: J. Lewis Smith; American Textbook of Diseases of Children, Starr; Rotch.
 Materia Medica and Therapeutics: Hare.
 Ophthalmology: De Schwenitz; Juler; Nettleship.
 Otology: Field; Roesa.
 Laryngology: Seiler; Bosworth.
 Diseases of the Skin: Duhring; Newman; Pye-Smith.
 Venereal Diseases: Eobt. W. Taylor; Hyde-Montgomery; F.N. Otis.
 Pathology: Ziegler; Delafield and Prudden; Gibbes.
 Bacteriology: Abbott; Ball; Sternberg.
 Medical Electricity: Erb; Stewart; Lawrence.
 Pharmacy: Sayre's Essentials.
 Miscellaneous: Thomas' Medical Dictionary; Gould's Medical Dictionary; Woodman & Tidy's or Taylor's Medical Jurisprudence; The Urine in Health and Disease, Black; Pepper's System of Medicine; Manton's Embryology.

1902-1903:

Anatomy: Gray; Morris; Haynes; Weisse.
 Surgery: Park's Surgery; Jacobsen's Operative Surgery; International System of Surgery; Lane's Surgery of Head and Neck; Heath's Minor Surgery and Bandaging; Seen's Practical Surgery.

1902-1903: (continued)

- Surgical Pathology: Billroth; Warren.
 Principles and Practice of Medicine: Osler; Strumpell.
 For reference: Loomis and Thompson's American System of Medicine; and Allbutt's System of Medicine.
 Clinical Diagnosis: Musser; Simon.
 Physical Diagnosis: Cabot.
 Physiology: Stewart's Manual; The American Text-Book; Hammersten's Physiological Chemistry.
 Biology: Jeffery and Parker.
 Embryology: Heisler and Quain.
 Chemistry and Toxicology: Medical Chemistry and Chemical Analysis, Platt; Bartley's Medical Chemistry.
 Histology: Bohm and Davidoff; Stohr; Clarkson.
 Obstetrics: Davis; Hirst; Playfair; Atlas of Obstetrical Diagnosis and Treatment; Atlas of Labor and Operative Obstetrics; Saunders & Co.
 Diseases of Women: Penrose; Reed; Garrigues; Kelly.
 Diseases of Children: Holt; Rotch; American Text-Book of Diseases of Children, Starr. For reference: Keating Cyclopedia of Diseases of Children.
 Materia Medica Therapeutics: Hare; White and Wilcox; Culbreth; Butler; Cushing; Shoemaker.
 Ophthalmology: Swanzy; De Schwenitz; Fuchs.
 Otology: Hartman; Roosa.
 Laryngology: Seiler; Bosworth.
 Diseases of the Skin: Duhring; Newman; Pye-Smith.
 Genito-Urinary and Venereal Diseases: White and Martin; R.W. Taylor; Hyde-Montgomery.
 Pathology: Ziegler.
 Bacteriology: Muir and Ritchie; McFarland; Sternberg.
 Medical Electricity: Erb.
 Pharmacy: Sayre's Essentials.
 Hygiene: Rohe.
 Nervous Diseases: Dana; American Text-Book of Nervous Diseases, Oppenheim.
 Mental Diseases: Spitzka; Regis.
 Miscellaneous: American Pocket Medical Dictionary; Gould's Medical Dictionary; Duane's Medical Dictionary.

1908-1909:

- Anatomy: Gray (new American Edition), Cunningham; Morris; Gerrish; Quain; Eckley; Toldt.

1908-1909: (continued)

- Bacteriology: Muir and Ritchie; McFarland; Sternberg.
 Biology: T. Jeffery Parker.
 Chemistry: Alexander Smith; Medicus; Remsen's Organic;
Prescott and Johnson; Sutton.
 Clinical Diagnosis: Sahli; Musser; Cabot.
 Clinical Pathology: Wood; Boston; Cabot; Ewing.
 Dermatology: Walker; Stelwagon; Morris; Hyde and Mont-
 gomery; Saborand's Topographical Dermatology;
Kaposi.
 Dictionaries: Gould; Gray; Foster; Dorland; Duane.
 Electro-Therapeutics: Erb.
 Embryology: Heisler; Minot and McMurrich.
 Fractures: Scudder.
 Genito-Urinary and Venereal Diseases: White and Martin;
 Taylor; Morton.
 Gynecology: Ashton; Findley; Penrose; Kelly.
 Histology: Bohm and Davidoff; Stohr; Clarkson.
 Hygiene: Harrington; Rohe; Egbert; Bergey.
 Legal Medicine: Peterson and Haines; Cleavemeyer and
 Bowlby; Taylor; Reese.
 Materia Medica, Pharmacognosy, and Therapeutics: Cushny;
 Hare; White and Wilcox; Butler; Shoemaker; Potter;
 10th edition; U.S. Pharmacopoeia, 8th edition.
 Medical Latin: Crothers and Bice.
 Medicine: Osler; Hare; Anders.
 Mental Diseases: Spitzka; Baumeister and Bower; Berkeley,
 Regis.
 Nervous Diseases: Gowers; Star; Oppenheim.
 Obstetrics: Edgar; Hirst; Williams; Atlas of Obstetrics.
Diagnosis and Treatment; Atlas of Labor and Oper-
ative Obstetrics (Saunders).
 Ophthalmology: Swanzy; De Schweinitz; Fuchs.
 Otolgy: Bacon; Barr.
 Pathology: Delafield and Prudden; Stengel; Ziegler.
 Pediatrics: Holt; Rotch; Koplik; Hecker and Trummel.
 Pharmacy: Sayre's Essentials.
 Physical Diagnosis: Cabot.
 Physiological Chemistry: Long.
 Physiology: Howell; Stewart.
 Radiology: Allen; Pusey and Caldwell; Beck; Freund.
 Surgery: Rose and Carless; Da Costa; Berg's Surgical Diag-
 nosis; Jacobson's Operations of Surgery; Bergmann's
Handbook; Koenig; Lehrbuch des Spicullin Chirurgie.

APPENDIX E

FEES

I. Medical Department of the University of the Pacific

1859:

Fee to each Professor (to be paid in advance)...	\$30.00
Matriculation fee (paid only once).....	5.00
Graduation fee.....	50.00

1860 through 1864:

Fee to each Professor (to be paid in advance)...	\$20.00
Matriculation fee (paid only once).....	5.00
Graduation fee.....	50.00

1865 through 1869:

Period of suspension.

1870 through 1871:

	First Course	
Full course of lectures.....		\$130.00
Matriculation fee.....		5.00
Demonstrator's Ticket.....		10.00
	Second Course	
Full course of lectures.....		\$130.00
Graduation fee.....		40.00
Total fees for two courses and graduation.....		\$315.00

II. Medical College of the Pacific

1872 through 1878:

Same as 1871.

1879 through 1882:

First Course	
Full course of lectures.....	\$130.00
Matriculation fee.....	5.00
Demonstrator's ticket.....	10.00

Second Course	
Full course of lectures.....	\$130.00

Third Course	
Graduation fee.....	\$ 40.00
Total fees for three courses and graduation....	\$315.00

III. Cooper Medical College

1883 through 1893:

Same as 1882.

1894 through 1898:

	First Year	
Matriculation fee.....	\$	5.00
Demonstrator's ticket.....		10.00
Regular course of lectures.....		130.00

	Second Year	
Regular course of lectures.....	\$	130.00

	Third Year	
Regular course of lectures.....	\$	130.00

	Fourth Year	
Graduation Fee.....	\$	40.00

Total fees for the four courses and graduation	\$	445.00
--	----	--------

1899 through April 1903:

Matriculation fee (paid only once).....	\$	5.00
Demonstrator's fee (paid for each of two years)		10.00
Lecture fee (for each year of attendance).....		100.00
Graduation fee (not returnable).....		25.00

Total fees for four years.....	\$	450.00
--------------------------------	----	--------

1903-1904:

Matriculation fee (paid on entry).....	\$	5.00
Course fee (including laboratory and dissecting material) for each of four years.....		150.00
Breakage deposit (returnable, less breakage, at close of each term) for each of four years.....		10.00

Maximum total fees for four years.....	\$	845.00
--	----	--------

1904 through April, 1909:

Matriculation fee (paid only on entry).....	\$	5.00
Tuition fee (for each of four years).....		150.00

1904 through April, 1909: (continued)

Laboratory charge for material used, including anatomical material, for each of four years.....	\$ 10.00
Breakage deposit, returnable, less breakage, at close of each term for each of four years.....	10.00
Graduation fee (not returnable).....	25.00
Maximum total fees for four years.....	\$710.00

IV. Stanford School of Medicine

1909:

Tuition fee for each of four years.....\$150.00
 Laboratory fees and fees for anatomical material, etc., could be fixed by the departments concerned.

Total fees for four years exclusive of laboratory and material fees.....\$600.00

1910-1911 through 1913-1914:

Tuition fee for each of four years.....\$150.00
 Charge for anatomical material for each of the first four semesters..... 5.00
 Material and breakage fees for the other departments per year. (returnable).....\$10 to \$20

Maximum total fees for four years.....\$700.00

1914-1915 through 1916-1917:

Same as before except that the \$5 charge for anatomical material was to be paid for only three semesters instead of four.

Maximum total fees for four years.....\$695.00

1917-1918 through 1918-1919:

Tuition fee for each of four years (payable in installments of \$50 each quarter).....\$150.00
 Charges for material for each of the first five quarters..... 5.00
 Material and breakage fees for the other departments per year (returnable).....\$10 to \$20

Maximum total fees for four years.....\$705.00

1919-1920:

Same as before plus the following statement:

Students who have paid the regular fees of the Medical Department in full, and wish to take additional work before graduation will pay for this additional work such fees as are decided upon in conference with the Dean and the Executive Head of the division in which such courses are taken.

1920-1921:

Tuition fee for each of four years (payable in installments of \$50 per quarter).....\$150.00
 Incidental fee per quarter for the first five quarters..... 13.00
 Charge for materials for each of the first five quarters..... 5.00
 Incidental fee per quarter (in San Francisco),... 10.00
 Guild fee per quarter (in San Francisco)..... 2.00
 Material and breakage fees for the other departments per year (returnable)..... \$10 to \$20.

Students who have paid the regular etc.....(same as 1919-1920).

Total fees for the four years (maximum).....\$880.00

1921-1922 through 1922-1923:

Tuition fee for each of four years (payable in installments of \$85 per quarter).....\$255.00
 Guild fee for each quarter..... 2.00
 Material and breakage fees for the various departments per year.....\$10. to \$20.

Maximum total fees for the four years.....\$1124.00

Students who have paid the regular etc.....(same as 1919-1920).

1923-1924 through 1926-1927:

Same as before except for the following addition:

Students taking the sixth quarter's work in Medicine at San Francisco will be required to pay a \$3 deposit at the Business Office of Lane Hospital to cover breakage or loss of apparatus of the Department of Pharmacology. Material and Breakage fees were now \$10 to \$20 per quarter.

Total fees for four years.....\$1284.00

1927-1928 through 1928-1929:

Application fee for admission to the University..\$ 5.00

1927-1928 through 1928-1929: (continued)

Tuition fee for each of four years.....	\$300.00
Community fee for each of first five quarters....	10.00
Pavillion fee for each quarter for undergraduates	1.00
Hospital fee per quarter for last seven quarters.	2.00
Diploma fee for each degree received.....	5.00
Material and breakage fees for the departments per quarter (returnable).....	\$10 to \$20
Maximum total fees for four years.....	\$1517.00

Students who have paid the regular etc.....(same as 1919-1920).

1929-1930:

Same as before except for the following:

A deposit of \$20 is required of each applicant admitted to the entering class, or to advanced standing, in the School of Medicine, within ten days after receiving notice of his selection, this deposit being applied upon the payment of his medical fees for the first quarter.

Also the Community fee was raised from \$10 per quarter to \$13 per quarter, and the Hospital fee was raised from \$2 per quarter to \$5 per quarter.

Maximum total fees for four years.....	\$1553.00
--	-----------

1930-1931 through 1931-1932:

Same as before except for the following:

The tuition fee was raised from \$300 per year to \$345 per year. Also a fee of \$5 was charged for the course in Operative Surgery, in order to cover materials and supplied necessary for this course.

Maximum total fees for four years.....	\$1738.00
--	-----------

1932-1933 through 1933-1934:

Same as before except for the following:

Community fee was raised from \$13 per quarter to

1932-1933 through 1933-1934: (continued)

\$14 per quarter, and the Pavillion fee of \$1 was dropped.

Maximum total fees for four years.....\$1740.00

1934-1935:

Application fee for admission to the University.....	\$ 5.00
Tuition fee for each of four years.....	345.00
Community fee for each of first five quarters..	14.00
Student Health fee for each of last seven quarters.....	5.00
Diploma fee for each degree received.....	5.00
Material and breakage fees per quarter....	\$10 to \$20.
Department fees for the fifth and sixth quarters' work.....	53.00

Maximum total fees for four years.....\$1785.00

A deposit of \$20 is required of each applicant admitted to the entering class, or to advanced standing, in the School of Medicine, within ten days after receiving notice of his selection, this deposit being applied upon the payment of his medical fees for the first quarter.

Students who have paid the regular fees of the School of Medicine in full and wish to take additional work before graduation will pay for this additional work such fees as are decided upon in conference with Dean and Executive Head of the department in which such courses are taken.

1935-1936:

Same as before except for the following change:

The Community fee was raised from \$14 per quarter to \$15 per quarter, and there was new fee of \$1 per quarter for athletic privileges in San Francisco.

Maximum total fees for four years.....\$1796.00

1936-1937 through 1937-1938:

Same as before except for the addition of \$1 Student

1936-1937 through 1937-1938: (continued)

Body fee during the winter quarter in San Francisco.

Maximum total fees for four years.....\$1797.00

1938-1939:

Same as before except that the department fees for the fifth and sixth quarters' work in San Francisco was raised to \$56.50.

Maximum total fees for four years.....\$1800.50

1939-1940:

Same as before except that the department fees for the work of the fifth and sixth quarters in San Francisco was not \$57.50. Also there was General Library fee of \$.50 per quarter for the first five quarters.

Maximum total fees for four four years.....\$1804.00

1940-1941:

Application fee for admission to the University	\$ 5.00
Tuition fee for each of four years.....	390.00
Community fee for each of first five quarters..	15.00
Student Health fee for each of last seven quarters.....	5.00
Athletic Privilege fee in San Francisco (per quarter).....	1.00
Student Body fee for the winter quarter in San Francisco.....	1.00
General Library fee per quarter for the first five quarters.....	.50
Material and Breakage fees per quarter.....	\$10 to \$20.
Department fees for the fifth and sixth quarters' work in San Francisco.....	50.00
Maximum total fees for four years.....	\$1974.00

A deposit of \$20 is required of each applicant admitted to the entering class, or to advanced standing, in the School of Medicine, within ten days after receiving notice of his selection, this deposit being applied upon the payment of his medical fees for the first quarter.

Students who have paid the regular fees of the

1940-1941: (continued)

School of Medicine in full and wish to take additional work before graduation will pay for this additional work such fees as are decided upon in conference with the Dean and the Executive Head of the department in which such courses are taken.

1941-1942 through 1942-1943:

Same as before except that the General Library fee was now \$3 per quarter instead of fifty cents per quarter. Also there was an Incidental fee of \$10 per quarter for the first five quarters.

Maximum total fees for four years.....\$2036.50

1943-1944:

Same as before except that the department fees for the work of the fifth and sixth quarters in San Francisco were \$69.50.

Maximum total fees for four years.....\$2055.50

1944-1945:

Application fee for admission to the University.	\$ 5.00
Tuition fee for each of four years.....	390.00
Community fee for each of first five quarters...	15.00
Incidental fee per quarter for first five quarters.....	10.00
Students' Health fee for each of last seven quarters.....	5.00
Student Body fee for one quarter in San Francisco.....	1.00
Library fee for each quarter.....	3.00
Material and Breakage fee per quarter.....	\$10 to \$20.
Department fee for the work of the fifth and sixth quarters in San Francisco.....	71.50

Total maximum fees for four years.....\$2072.50

A deposit of \$20 is required of each applicant admitted to the entering class, or to advanced standing, in the School of Medicine, within ten days after receiving notice of his selection, this deposit being applied upon the payment of his medical fees for the first quarter.

1944-1945: (continued)

Students who have paid the regular fees of the School of Medicine in full and wish to take additional work before graduation will pay for this additional work such fees as are decided upon in conference with the Dean and the Executive Head of the department in which such courses are taken.

APPENDIX F

FIRST ORGANIZATION OF THE FACULTY OF THE STANFORD SCHOOL
OF MEDICINE AS ADOPTED BY THE BOARD OF TRUSTEES, 1909.

The teaching body of the Medical Department of Leland Stanford Junior University shall consist:

(a) Of the members of the Medical Department Faculty, as specified in the Medical Faculty Organization adopted October 30, 1908.

1. Professors; 2. Clinical Professors; 3. Associate Professors; 4. Associate Clinical Professors.

(b) Assistant Professors, Assistant Clinical Professors.

(c) Lecturers, Instructors, Assistants.

Professors and Associate Professors are to be those members of the Medical Faculty who are under full salary and who give the main part of their time to the work in their respective departments.

Clinical Professors and Associate Clinical Professors are to be of equal rank with Professors and Associate Professors, respectively, in the Medical Faculty, but to be men engaged in practice.

The following shall be the Officers and Standing Committees of the Medical Department Faculty:

1. The Executive Head of the Department, appointed annually by the President, shall act as presiding officer.

2. A secretary, who shall also act as Assistant Registrar for the work in San Francisco under the registrar of the University.

3. The following Committees:

(a) An Executive Committee of five members, appointed by the President of the University, to have general administrative functions for the Medical Faculty and to perform such other duties as may be assigned to it by the Medical Faculty.

(b) A Committee on Library and Publications, of three members, to be appointed by the President of the University.

(c) A Committee on Academic Matters, of three members, to be elected by the Medical Faculty from those members of the Medical Faculty who belong to the Academic Council.

- (d) A Committee on Register, Announcements, and Public Exercises, of three members, to be appointed by the President of the University.
- (e) A Clinical Committee, of five members, to take the initiative in arranging clinical material for purposes of instruction and to control the Lane Hospital, to be appointed by the President of the University.
- (f) A Committee on supplementary medical instruction, of three members, to be elected by the Medical Faculty, which shall have charge of:
1. The Lane Medical and Popular Lectures.
 2. Special courses given by distinguished guests on invitation.
 3. The establishment of elective courses (didactic and practical) in various branches of Medicine.
- It shall be the special duty of this committee to keep in touch with lecture courses in other Medical Institutions and also to encourage men of merit who may or may not be directly connected with the Medical Department to offer elective courses. The title of such instructors shall be that of Lecturer.
- (g) A Student's Advisory Committee, of three members, appointed by the President.
- (h) Such other committees as may be found necessary.

The term of service of all officers and of all committees shall be one year, or until their successors are chosen.

The sessions of the Medical Department Faculty shall be conducted according to Robert's Rules of Order.

The Medical Faculty shall meet monthly in term-time and otherwise at the call of the presiding officer or of five members.

There shall be no official nomination for elected committees, and a majority vote by ballot of the members present shall be necessary for election.

It is recommended that a physician superintendant be appointed on full time as manager of Lane Hospital under the direction of the Clinical Committee, and as business agent under the direction of the Medical Department faculty.

For purposes of administration the Medical Department shall be divided into the following divisions:

1. Anatomy; 2. Physiology; 3. Chemistry; 4. Pharmacology; 5. Pathology, including Bacteriology, Legal Medicine; 6. Medicine--subdivisions: Pediatrics, Neurology, Psychiatry and Psychotherapy, Electrotherapy,

Dietetics, Tropical Medicine; 7. Surgery--subdivisions: Ophthalmology, Otology, Laryngology, Genito-Urinary Surgery Gynecology, Dermatology, X-ray; 8. Obstetrics; 9. Hygiene and Public Health.

These divisions are to be established gradually with a Professor, Clinical Professor, or an Associate Professor as acting executive of each division, and where in any division more than one such Professor, Clinical Professor or Associate Professor is appointed, an acting Executive is to be designated by the President of the University.

The designated Executive of each division is to be administrative officer for all work of said division and to be subject to the adopted rules of the Faculty Organization of Leland Stanford Junior University. (Chapter VII).

Organization of Divisions

Section 1.

(a) The Division Faculties shall consist of all members of the teaching staff of the several Divisions, but only Professors, Clinical Professor, Associate Professor, and Associate Clinical Professors shall have the right to vote.

(b) The Executive of each Division shall preside at the meetings of the teaching staff of the Division and shall act as the representative of the Division in its official relations with the President, the Medical Department Faculty, and the various other Divisions. He shall sign all requisitions for supplies and equipment.

Section 2.

Each Division Faculty shall have direction of the work of instruction in its field and of its internal administration, subject only to such control as is vested in the Board of Trustees, the President of the University, the Academic Council or the Medical Faculty.

Section 3.

(a) All matters of internal administration in the Division Faculty shall be decided in conference or, if necessary, by a vote of its voting members.

(b) In case the Executive Head of a Division Faculty fails to concur in the decision of the Division Faculty he shall report in writing the action of the Division Faculty:

1. In administrative matters to the Medical Department Faculty or, if necessary, to the

Executive Committee of the Academic Council with a written statement of his reasons for non-currence, and the other members of the Division Faculty may, at will, make a written statement of their position.

(c) Any member of a Division Faculty shall have a like right to appeal.

(d) The Medical Department Faculty, or the Advisory Board, or the Executive Committee of the Council, as the case may be, shall in all such cases consider the course to be pursued, and shall submit its opinion in writing to the President of the University, whose decision shall be final.

(e) The Medical Department shall determine, by affirmative vote of three-fourths of the members present, when students shall be recommended for the degree of M.D., and the Executive Head of the Department of Medicine shall report the names of such students to the proper University Committee.

Section 4.

Division Faculties may adopt by laws for regulating the internal affairs of the Division and shall keep a record of their official acts.

Section 5.

Meeting of a Division Faculty may be called by the Executive or by any two voting members.

APPENDIX G

THE FIRST CURRICULUM OUTLINE AS AMENDED AND ADOPTED
BY THE STANFORD SCHOOL OF MEDICINE, 1909.

In Palo Alto

<u>1st semester:</u>	<u>Lec.</u>	<u>Lab.</u>	<u>Units</u>
Neurology, Gross and minute anatomy of the Brain and Spinal Cord.	1	6	3
Histology.	1	6	3
Gross Anatomy (with dissection). . . .		9	3
Physiology, Muscle, nerve circulation	1	5	3
Embryology.		6	2
Totals.	3	32	14
 <u>2nd semester:</u>			
Neurology.	1	6	3
Histology.	1	6	3
Gross Anatomy (with dissection). . . .		6	2
Physiology, Digestion, Respiration, Nutrition, Metabolism, etc.	1	5	3
Organic Chemistry.	3		3
Toxicology.		9	3
Totals.	6	32	17
 <u>3rd semester:</u>			
Bacteriology.	1	6	3
Gross Anatomy (with dissection)		6	2
Pharmacology (experimental)	2	3	3
Physiological Chemistry	3		3
Chemical Lab. (Physiological Chem.) . .		9	3
Physiology, Nervous system, Sense Organs, etc.	1	5	3
Journal Club.	1		1
Totals	8	29	18

In San Francisco

<u>4th semester:</u>	<u>Unit Periods</u>
Applied Anatomy (Medical and Surgical) . . .	3
Medicine (Physical Diagnosis, etc.)	3
Surgery (Introductory)	4
General Pathology (Lectures and Discussions)	5
Pathological Histology (Lab.)	2
Special Anatomy (Pelvic)	2
Materia Medica	2
Physical Therapeutics	2
Total . . .	<u>23</u>
<u>5th semester:</u>	
Medicine (Lectures and Clinics)	7
Surgery (Lectures and Clinics)	6
Special Pathology (Lectures)	2
Clinical Laboratory	2
Gynecology	1
Genito-Urinary Diseases	1
Pediatrics	1
Ophthalmology	1
Obstetrics	2
Total . . .	<u>23</u>
<u>6th semester:</u>	
Medicine (Lectures and Clinics)	7
Surgery (Lectures and Clinics)	6
Gynecology	1
Special Pathology (Lectures)	2
Obstetrics (Lectures and Discussions) . . .	2
Pediatrics	1
Dermatology	1
Ophthalmology, etc.	1
Neurology (Pathological)	1
X-ray Technique, etc	1
Total . . .	<u>23</u>
<u>7th semester:</u>	
Medicine (Clinic)	2
Medicine (Section Work)	3
Neurology	1
Surgery (Clinic)	2
Surgery (Section Work)	3

<u>7th semester: (continued)</u>	<u>Unit Periods</u>
Obstetrics (Practical)	1
Ophthalmology, etc.	3
Genito-Urinary Diseases	1
Gynecology	1
Pediatrics:	1
Psychiatry	1
Dermatology	1
History of Medicine (Lectures and Dis-	
cussion)	1
Hygiene (Lectures)	1
Total	<u>21</u>

8th semester:

Medicine (Clinic)	2
Medicine (Section Work)	3
Neurology	1
Surgery (Clinic)	2
Surgery (Section Work)	3
Obstetrics (Practical)	1
Ophthalmology, etc.	3
Genito-Urinary Diseases	1
Gynecology	1
Pediatrics	1
Psychiatry	1
Dermatology	1
Legal Medicine (Lectures)	1
History of Medicine (Lectures or Dis-	
cussions)	1
Hygiene (Lectures)	1
Total	<u>22</u>

APPENDIX H

GRADUATES

I. Medical Department of the University of the Pacific

1859: (Sept. 13) (2)Atkinson, Alfred
Hertel, Chas. E. A.1860: (No exercises) (1)

Furley, Charles C.

1861: (March 14) (5)Buck, S. T.
Hinckley, George E.
Rowell, Charles
Wallace, S. T.
ad eundem
Chamblin, M.R., M.D.1862: (March 13) (5)Howard, Frank H.
Manly, James S.
Murphy, James
Ferrin, R.
Younger, William J.1863: (March 12) (8)Gibbons, Henry, Jr.
Hale, William F.
Holbrook, Charles E.
King, E. W.
Kunkler, John E.
McAfee, James W.
Mott, H. V.
Whitney, James D.1864: (March 18) (7)Cachot, M.A.
Deal, D. S.
Garwood, W. T.
Harrison, J.T.1864: (continued)Robertson, E. B.
O'Neill, Owen H.
Sterling, F. S.1865 through 1869:

Period of Suspension.

1870: () (8)Belinge, F. A.
Pilkington, John B.
Rowell, Chester
ad eundem
Chesley, Charles P., M.D.
Dubois, Amos S., M.D.
Fiske, Henry M., M.D.
Pond, M. B., M.D.
Younger, Alexander J., M.D.1871: (Nov. 7) (8)Gye, J.
Jackson, G. H.
Johnston, William D.
Knowles, S. A.
Lengfeld, A. L.
Millington, J.
Powell, D.
ad eundem
Sillwagon, W. W., M.D.

II. Medical College of the Pacific, 1872 through 1882

1872: (Nov. 1)

Bergstein, Henry
 Cambell, George
 Keeney, James W.
 Allen, Jacob
 McCurdy, Samuel
 Pietrzycki, Marcel
 Pratt, Albert H.
 Rene, Gustave A.
 Wagner, John
ad eundem
 Barber, E. T. M.D.

1873: (Nov. 4)

Blake, Chas. E.
 Chismore, Geo.
 Colman, Fred. W.
 Farrar, Moses E.
 Hammond, Josiah S.
 Herdman, Wm. S.
 Howe, Alvin, J.
 Kenyon, Curtis, G.
 McCormack, Wm. A.
 O'Keefe, Wm. H.
 Wemple, Emmet L.
 Wilson, Job D.
ad eundem
 Furley, Chas. C., M.D.
 Miller, P. B. M.D., L.R.C.S.E.

1874: (Nov. 5)

Chipman, M. M.
 Gerlach, Geo.
 Leffler, John
 Maas, Philip
 Morse, Julius C.
 Parker, John
 Prevost, A. L.
 Robertson, John B.

1875: (Nov. 4)

Bacon, Truman F.
 Brune, August E.
 DeWolf, Geo. S.

1875: (continued)

Eaton, Frank B.
 Harding, Edwin H.
 Hilton, Geo. F.
 Levington, Marcus
 Nightingale, John
 Robertson, James C.
 Rockman, Dr. Morris
 Smith, Loomis E.
 Wilson, M.A., B.D.; P.T.
ad eundem
 Herrick, Stephen H., M.D.

1876: (Nov. 2)

Voeller, H.
 Wenzell, Wm. T. (Hon-
 orary)
 Crane, George
 Fifield, Wm E.
 Fiske, Harry W.
 Griffith, Edgar W.
 Harris, Fred W.
 Harwood, Sweitzer S.
 Lee, George P.
 Lucas, William T.
 McGovern, Chas. C.
 Mervy, Alphonse T.
 Prosek, Joseph
 Reily, Jos. R.
 Robertson, H. D.
 Saltmarshe, Thomas
 Schoenemann, Chas. W.
 Snow, Taylor W.
 Thompson, W. F.
 Titus, Frank H.
 Van Zandt, Jr., John W.
 Young, Stephen A.

1877: (Nov. 6)

Bathurst, E. W.
 Bettencourt, J. de Souza
 Clark, B. F.
 Clark, E. A.
 Fitzgibbon, G. J.
 Garner, H. R.

1877: (continued)

Higgins, Alice
Hudson, L. E.
Pedlar, A. J.
Schulze, C.
Smith, A. G.
Williams, J. B.
Williams, W. A.

1878: (Nov. 5)

Ashford, Jas. W.
Brown, Chas. Y.
Cole, John A.
Coley, Henry C.
Donaldson, Jas. F.
Farnum, Chas. E.
Gibbons, Wm. E.
Irean, Lambert
Ivancovich, George
Jackson, Wm. J.
Jamieson, Ebenezer
Jones, Wm.
Knowles, Wm. A.
Kuykendall, Wm.
Lovelace, Arthur S.
McSwegan, Daniel
Morse, John F.
Norwold, Chas. P.
Patterson, Wm. A.
Robe, Wm. E.
Roe, Marshall J.
Rogers, Nathan
Stuart, Anabel McG.
Vincent, Frank O.
Ward, Daniel W.
Winter, Washington G.

1879: (October 5)

Adler, Albert S.
Bishop, Chas. B.
Clark, Royal F.
Hammond, Wm. H.
Hart, Henry H.
Lawson, Emelie M.
LeTourneux, Thomas J.
Mayon, James L.

1879: (continued)

O'Brien, Edward S.
Post, Kate W.
Read, Henry, M.A.
Sillwagon, Mervin L.
Weldon, Wm. E.
Whitney, Mary

1880: (Oct. 28)

Everts, Edward
Kienborts, Daniel
Lowry, Agnes
Lowry, Isabel
Van Orden, Jr., Leander
Phelan, Gregory
Sargent, Elizabeth R.

1881: (Nov. 8)

Allen, Chas. Harvey
Axelrod, Max
Cohn, Isadore Elkan
Griswold, Wm. Henry
Healy, John Hopkins
Lloyd, Duke
Rosenthal, Chas. H.
Stoneberger, Alfred A.
Williams, George W.

1882: (Last of Oct.)

Epperson, John Clifton
Freeman, Mary Elizabeth
Frisbie, Edward G.
Hasenbals, William
Hoisholt, Andrew William
Holmes, Jr., Albert O.
Johnson, Robley D.
Keefe, Thomas
Long, Willard A.
Lynch, Francis W.
McCarthy, William D.
Riley, Louis K.

III. Cooper Medical College, 1883 through 1912

1883: (Nov. 6)

Abrams, Albert
 Adams, Frank L.
 Agard, Lawrence M.
 Boyd, Nathan E.
 Burns, John F.
 Field, Edna Ricker
 Fifield, Ella J.
 Fisher, Stephen B.
 Goodspeed, Thurston V.
 Gonzalez, Mariano E.
 Lawhead, Hiram D.
 McLaughlin, William H.
 Newman, DeWitt C., M.D.
 Pratt, William F.
 Sullivan, Walter, H.
 Todd, James H.
 Westover, Giles C.
 Willey, Oscar F.
 Woodbridge, Bradford

1884: (Nov. 4)

Aldridge, Jephtha W.
 Bryant, William A.
 Bushnell, George E.
 Call, Samuel J.
 Card, Charles W.
 Cook, Eliza
 Gunn, John W.
 Healy, Joseph W.
 Heerdink, John W.
 Hoy, Naomi E.
 Joy, Blanche
 Kearney, Peter A.
 Knox, Myra W.
 McDonald, Jonathan T.
 Verrinder, Arthur E.
 Verrinder, Robert F.

1885: (Nov. 10)

Akerly, James C. S.
 Bennett, Nettie M.
 Blood, Warren H.

1885: (continued)

Burke, Willard P.
 Camp, Calvin E.
 Card, Egerton F.
 Evans, Adolph M.
 Finnie, Walter F.
 Gasteazoro, Joseph C.
 Gresham, Arthur E.
 Hanson, George F.
 Jones, William F.
 Lindley, Will E.
 Patten, Mark F.
 Rattan, Frank
 Sanderson, Henry E.
 Renebome, John Henry
 Smith, Driesbach

1886: (Nov. 9)

Ashby, Richard H.
 Bennett, Mary E.
 Camp, James N.
 Chapman, William
 Du Milieu, Arthur
 Fletcher, Mary D.
 Johnston, Joseph W.
 McKee, Albert B., Ph.M.
 Salomon, Max
 Siefkes, John L.
 Tully, John J., A.M.

1887: (Nov. 17)

Alvarez, Luis F.
 Artigues, B.S.; Joseph E.
 Brandon, Alfred R.
 Brink, Henry Orr
 Buckland, Owen
 Burns, Matilda W.
 Clark, Fred P.
 Cook, Channing H.
 Cope, William H.
 Dozier, C. A.
 Frink, G. K.
 Fuller, George W.

1887: (continued)

Gallimore, Elizabeth, M.S.
 Gibson, John W.
 Howitt, Harry O.
 Johnson, Murrey L.; A.M.
 Kelly, Elmer E., Ph.D
 Lafontaine, Emma C.
 Norman, William A.
 Olmstead, Theodore
 Ottmer, Florence H.
 Ragan, Denis F.
 Read, John M.
 Rigdon, Rufus L.
 Rottanzi, Tullio A.
 Simpson, William P.
 Stites, Ida M.
 Yates, Elizabeth M.; A.B.

1888: (Nov. 13)

Campbell, Joseph H.
 Deane, Tenison
 Mahoney, Thomas L.
 Page, Mary B.
 Peel, Jonathan M.
 Rosencrantz, Nathan
 Rothganger, Geo.; A.B.
 Somers, G. B.
 Stahle, F. H.
 Stammer, L. R.
 Tennent, John B.
 Wolf, Joseph (Jr)
 Worley, Effie D.
 Worley, Minnie G.

1889: (Nov. 12)

Affleck, James T. G.
 Ballard, Doreas L.L.
 Brodek, Henry
 Buteau, Samuel H.
 Cachot, Mary A.
 Cheney, William F; B.L.
 Clason, Rollo S.
 Coffey, Walter B.
 Cooper, Chas. E.
 Cox, Edward W.; Ph.B
 Cross, Harry N.
 Deas, Wm. B.

1889: (continued)

Drossel, August A.; Ph.G.
 Galbraith, Archibald M.
 Grazer, Fred. A.; Ph. G.
 Gordon, Cameron G.
 Hanna, Wm. J.
 Hartley, Roland E.
 Harvey, Daniel M.
 Leggett, Cordelia B.
 Levison, Chas. G.; Ph.G.
 Martin, Abel H.
 Milliken, Albert A.
 Mizner, Wm. G.
 Moore, Ellen D.
 Newell, Lucius Wm.
 O'Connell, Rob't. J.; A.B.
 Olesen, Johan P.
 Pache, George F.
 Payne, Redmond W.; M.D.
 Proschold, Henry
 Short, Wm. L.; A.B.
 Stearns, Victor J.
 Stillman, Stanley
 Taylor, Alvert H.
 Uchida, Fusaharu; M.D.
 Wade, Chas. Fréd.
 Woolf, Michael J.

1890: (Nov. 13)

Baker, Carrie
 Dowle, Jas. T.
 Fisher, Chas. M.
 Gardner, Jerome T.
 Hanna, Harriet H.
 Harris, Stephen M.
 Hubbell, Geo. R.; B.S.
 Huffaker, Anthony
 Jump, Rob't. L.; Ph.B
 Kingdon, Henrietta, E.
 McGowan, Edward J.
 Nelson, Lois; B.S.
 Parish, Harry L.
 Rowell, Hubert N.
 Snedigar, Willis S.; Ph.B.
 Stone, Elmer E.
 Woolsey, Mark H.

1891: (Dec. 4)

Andrews, Harry A.
 Blumer, George
 Burke, Benjamin F.
 Christal, James F.
 Coffman, Melvin S.
 Deane, Louis C.
 Fischer, Frank; A.B.
 Gibson, R. E.
 Griffin, Charles F.
 Gros, Edmond L.
 Hart, Alden, C.
 Hershiser, William A.
 Howitt, Richard I.
 Jones, Charles W.
 Kellogg, Clarence W.
 Kobayashi, Sanzabro
 McGettigan, Robert J; B.S.
 Mori, Iga
 O'Neill, Arthur A.
 Overacker, Kate
 Riley, William C.
 Rixford, Emmet; B.S.
 Rowell, William A.
 Samuesl, Edward H; Ph.G.
 Sanderson, Arthur J.
 Shelper, Evangeline
 Shoemaker, David
 Simpson, Josiah A; A.M.
 Whiting, Fenton B.

1892: (Dec. 6)

Anderson, Charles H.
 Asano, Sanya; M.D.
 Bailly, Thomas E.
 Baily, Richard, J.
 Bowman, Frank A; M.A.
 Brackett, George F.
 Brewer, Edward C.
 Broderick, Richard
 Brown, Adelaide; A.B.
 Clark, William A.
 Costigan, George D.
 DeWitt, John W.
 Graves, Sarah, J.
 Gedge, Donald M.
 Hassler, William C; Ph.G.

1892: Continued)

Hawkins, George W.
 Hogan, James J.
 Horsfall, William
 Knorp, Francis F.
 Koenig, Charles J.
 Lowell, Frank S.
 Miller, Ida C; Ph.B
 Mardis, Benjamin A.; Ph.G.
 Nixon, Anne W.
 Orella, Fermin R.; S.B.
 Pomeroy, Herbert M.
 Ryder, Claude C.
 Seibel, Philip H.
 Seymour, James H.; A.B.
 Smith, Charles J.J.
 Sprague, Fred F.
 Sullivan, William N.
 Sutherland, Fred B.
 Swett, Wilber M.; A.B.
 Thomas, Edward W.
 Twitchell, Edward W.
 Van Den Bergh, Jefferita D.
 Wilson, George B.

1893: (Dec. 7)

Apple, Benjamin
 Barrett, John S.; A.B.
 Bentley, Benjamin C.; Ph.B
 Bodkin, Thomas P.
 Boido, Lorenzo; B.S.
 Burgess, Charles F.
 Burk, Geo. W.
 Campbell, James C.
 Cavanagh, Stephen P.
 Clark, James W.
 Cowan, Angus B.
 Cunnane, Thomas E.
 Emerson, Frank X.
 Friedhofer, William F.
 Gossage, Harry S.
 Hall, Graily H.
 Hansen, Carl C.
 Hardin, James L.
 Hatch, Herbert W.
 Heald, George H.
 Henderson, Andrew M.; A.B..

1893: (continued)

Holbrook, Edward F.
 Hull, Leonard C.
 Kane, John M.
 Kelleher, Alfred B.
 Lazier, Donald C.
 McConnell, Edward G.
 McHear, John A. (Jr.)
 Meyer, Henry
 Miller, Harry O.
 Morrison, John M.
 Nelms, Milton A.
 Orvis, Ralph T.
 Patterson, Alexander
 Pettit, Mark L.
 Sartori, Henry J. C. A.
 Steiner, John B.; A.M.
 Thorne, Walter M.
 Van Harlingen, Katherine
 Walker, Agnes
 Ward, Moses Wylie; B.S.
 Waterhouse, Maude A.

1894: (Dec. 6)

Alden, Bertram F.
 Anderson, Edith V.
 Anthony, Richard S.
 Bloch, Herbert I.
 Blodgett, Thomas D.
 Bowman, Mary A.
 Brighthouse, Henrietta E.
 Browning, Charles L.
 Burgess, Bertrand F.
 Cannan, David; M.A.
 Carlson, Christian C.H.
 Carpenter, Frank W.
 Chalmers, George F.
 Clayton, Mary
 Collins, Arthur C.
 Conran, Patrick J. W.
 Derosier, George W.
 Donnelly, Edward F.
 Eagar, Ansell T.
 Eichler, Alfred
 Eldridge, John R.; A.B.
 Ellis, Landon R.

1894: (continued)

Fehlen, August; B.A.
 Foulkes, William B.
 Grosse, Alfred B.
 Grossman, E. L.; Ph.G.
 Hamlin, Oliver D.
 Hauber, Charles A.
 Holbrook, George S.
 Holland, Judson, A.
 Hughes, Thomas H.; Ph.G.
 Hurd, Eugenie A.
 Inman, Thomas G.; Ph.G.
 Johnson, Francis F.
 Kawano, Fujimatso
 Keck, Fred. C.
 Kelsey, John E.; Ph.G.
 Kingwell, John J.
 Kohn, Myron E.
 Leech, Claude R.
 Levinson, Amalie
 Maddux, James E.
 Maguire, Andrew A.
 McClun, Marah E.
 McCormick, Joseph S.
 Medros, Joseph J.; Ph.G.
 Moss, Joseph M.
 Newman, Avron S.
 Newton, Franklin C.
 Purkitt, Theodora F.
 Ritchie, Adam M.
 Roberts, William H.
 Roese, Charles H.; Ph.G.
 Rosenthal, Adolph G.
 Saunders, Bertha A.
 Scott, Walter K.; D.D.S.
 Sevenman, George W.
 Shumate, Thomas E.; Ph.G.
 Simpson, Frederick W.
 Smith, Larz A.
 Smith, James F.; M.S.
 Spottiswood, John J.
 Stick, Tyre H.
 Thompson, Charles E.
 Thompson, George H. (Jr.)
 Todd, William
 Torello, Emil H.
 Turner, Chas. E.; A.B.

1894: (continued)

Voje, Julius C.
West, Jacob H.
Woolsey, Frank R.

1895: (Dec. 5)

Austin, Malcolm O.
Barry, Earnest
Blodgett, Walter L.; B.S.
Bordo, Rosa M. G.
Burgess, George W.
Campbell, Edgar O.
Carpenter, Allen M.
Carter, Richard H.
Case, Martha S.
Church, Frank H.
Cross, Charles V.
Crothers, William H.; A.B.
Dodge, Clarence W.
Dorr, William R.
Dukes, Charles A.
Fish, Mary A.
Gallagher, John J.; B.S.
Garvin, Charles L.; A.B.
Glaser, Edward F.; Ph.G.
Graham, Gilbert F.; D.D.S.
Cray, Frank P.
Gregory, Lester C.; A.B.
Gunn, Herbert
Hablutzel, Charles E.
Hall, George, A.B.; D.D.S.
Harlow, Francis A.; M.D.
Harms, Frederick W.
Harrison, Emily G.
Hesser, George T.
Hill, Edmund E.; Ph.G.
Holmes, Clara M.
Hughes, James V.
Jordan, Fisher R.
Kodama, Rimpey
Korts, Benjamin F.
Kusel, Eli A.
Mahoney, Margaret J.
McNulty, Harry J.
Reinhard, Theodore H.
Meierdierks, William A.

1895: (continued)

Miller, Walter Mc.; B.Sc.
Moore, John C.
Nelson, Hells M.
O'Connor, James H.
Olmstead, Amos C.
Partridge, Harry
Peters, Birger
Powell, Walter H.
Prentice, Arthur D.
Reese, Reese E.
Ricker, Lucy M.
Robinson, Frank B.; B.S.
Roblee, William W.
Rumwell, Melville E.
Schlageter, Herman F.
Scroggs, Walter R.; A.B.
Sexton, Charles L.; Ph.G.
Van Dyke, Edwin C.; B.S.
Walter, Henry F.; A.M.
Walters, Harry B.
Wintworth, William H.; A.B.
Winterberg, Walter H.
Wymore, William W.
Wythe, Stephen

1896: (Dec. 8)

Allen, Lewis W.; B.S.
Barr, Warden T.; B.S.
Beattie, Hugh
Carroll, Francis M.
Chapman, Richard B.
Cheshire, Waldo L.
Fife, Joseph; F.S.
Folkers, Oscar H.; Ph.G.
Gardner, George M.
Graves, John H.
Green, Jonathan
Hadley, Fred H.
Hughes, Mabel D.
Hughes, John V.; A.B.
Julian, Alpheus H.; M.D.
Ladd, Ira B.
Lowell, Charles H.
Malmstrom, Hedwig
Mangan, Patrick J.

1896: (continued)

McCleave, Thomas C.
 McNulty, Fred. J.
 Miller, Charles H.
 Murphy, Mayela G.; Ph.B.
 Nourse, Beverly S.; B.A.
 Pinniger, Sidney, E.D.
 Porter, Robert L.; B.S.
 Raberge, Frances L.
 Rea, Samuel L.
 Rogers, John B.; B.A.
 Ross, Fred. W.
 Smith, Kirby B.; Ph.G.
 Stabel, Ferdinand
 Stafford, Auren A.
 Thomas, Phillip M.
 Thorne, Isaac W.
 Trommald, Edward A.
 White, Grace A. R.

1897: (Dec. 8)

Arnold, Mary L. H.
 Avery, Carrie L.
 Beasley, Shadworth O.
 Borland, Robert
 Brady, George T.; B.S.
 Brooke, William A.
 Brown, Effie A.
 Brown, Jeannette M.
 DeLappe, Fred R.
 Diggins, Edward A.
 Falk, Charles C.
 Fletcher, Henry D.
 Gedge, H. Edward; D.D.S.
 Gibbons, Morton R.
 Gravem, Knute L. (Jr.)
 Gross, Louis
 Haida, Katsugoro
 Hall, Lester P.
 Hammond, Robert R.
 Hardin, Andrew E.; A.B.
 Hoffman, Lawrence H.
 Horn, Henry Wells; B.S.
 Lathrop, Ida M.
 Lilley, John F.
 Mansfeldt, Oscar

1897: (continued)

Marsen, David A.
 MacChesney, D. A. G.
 McClelland, James L.; A.M.
 Parker, Thomas V. V.
 Pillsbury, Ernest S.
 Powers, William N.
 Preston, Myers A.
 Rickey, Rea D.
 Soga, K.
 Spencer, William O.
 Stansfield, Halstead A.
 Steinwand, Oscar W.
 Sweeney, Albert H.
 Teass, Chester J.
 Thomson, Hugh H.
 Treuholtz, Clarence A.
 Von Der Lieth, H. O.; Ph.G.
 Wilkinson, Percy
 Winn, Helen G.
 Worthington, Lois C.
 Young, William J.

1898: (Dec. 8)

Anderson, Longworth S.
 Aplynne, Myrtle A.
 Bell, Josephine
 Calhoun, Grant
 Carnegie, Wm. D.
 Carpenter, William M.; B.S.
 Crosby, Daniel
 Fine, Earnest M.
 Frankenheimer, Jule B.; A.B.
 Frankin, Walter S.
 Friedlander, David
 Barrard, Mabel L.
 Green, Jacob S.
 Guidinger, Margaret A.
 Hall, Thomas V.
 Hensler, William; A.B.
 Himmelsback, William
 Hopper, William C.
 Hoshino, Ottoichiro
 Houston, Abbert J.; B.L.
 Hyde, Crra Corsby
 Irwin, Lilian C.

1898: (continued)

Jones, John T.
 Kibbe, Minora E.
 Klenck, Augusta G.
 Lane, John A.
 Lynch, Oscar G.
 Maddux, Charles P.
 Meininger, Leo L.
 Niemeyer, Harry A.
 Ohrwall, Harold A. W.; B.S.
 Oliver, Harry R.
 Ostrom, Herbert C.
 Peck, Ralph E.
 Perrott, Walter L.
 Poheim, Joseph F.
 Pryor, Fredd O.
 Rowe, Charles H.
 Scamwell, Joseph W.; Ph.G.
 Shaw, Herbert G.; Ph.G.
 Smyth, Margaret H.
 Spalding, Otis B.
 Spencer, John C.
 Stucky, Simon T.
 Titchworth, James C.
 Vrooman, Sarah
 Zobel, Alfred J.

1899: (August 22)

Arbogast, Jacob L.
 Bailey, Frank J.
 Bailey, Willard C.
 Barber, Schuyler, A.
 Bernard, Joseph J.
 Bertola, Mariana
 Cherry, Edward M.; Ph.G.
 Clark, William R.
 Davis, Harold E.; D.M.D.
 Dougherty, William A.
 Estes, Weston B.; D.D.S.
 Grotenfend, Elizabeth E.
 Hadden, David; B.S.
 Hanlon, Edward R.; Ph.G.
 Harriss, Mary A.
 Hinkle, Beatrice M.
 Hinkly, Frank L.
 Huebner, Gustave A.
 Jones, William H.; A.B.

1899: (continued)

Keys, Elizabeth F. E.
 McCoy, Alva D.; B.S.
 McGeer, George H. (Jr.)
 McKinney, May A.
 McLaron William M.
 Miller, Austin V.
 Moore, Pauline A.
 Morse, Nellie L.
 Mosgrove, Anna M.
 O'Connell, Maurice W.; B.S.
 Phillips, LaForest E.
 Sharp, Grace H.
 Sharrocks, Alfred M.; A.B.
 Simon, Martin E.
 Smith, Arthur M.
 Smith, Donald R.
 Stephens, Lorenze L.
 Tibbe, William E.
 Topping, Frank P.
 Victorys, Ernest A.
 Voorsanger, William C.; B.S.
 Wells, Samuel J.
 Wightman, William M.
 Wilbur, Ray Lyman; A.M.
 Zillmer, Adolph L. W.

1900: (June 5)

Alexander, Paul C.
 Atkinson, Henry H.; B.A.
 Baker, Charles R.
 Beck, Edna L.
 Bell, Charles A.
 Cunningham, Charles M.
 Draper, Alfred L.
 Droll, George A.; B.S.
 Fay, Wilbert L.; B.S.
 Gregory, Frank S.
 Gunn, Francis G.
 Halton, Mary G.
 Howard, Joseph L.
 James, Joseph W.
 Krull, Frank
 Lando, Milton E.
 Mathewson, Carleton
 Mathewson, May A.
 McRae, Donald M.

1900: (continued)

Noble, Maude; Ph.B.
 Noble, Paul B.
 O'Connor, Charles A.
 Osmer, William
 Peck, Anna D.; A.B.
 Peck, Allen E.; A.B.
 Raynes, Francis E.
 Sawyer, Frank E.; A.B.
 Slocum, Samuel C.
 Smith, John W.
 Snow, William F.; A.M.
 Southworth, Henry E.
 Stile, John
 Thompson, Ernest E.
 Thrasher, Carrol
 Vestal, Hall
 Watson, Dorothea
 Westerfeld, Otto F.
 Wisner, Jessie E.

1901: (April 24)

Abbott, Phillip F.; A.B.
 Arnold, Chad E.
 Brown, Herschel H.; A.B.
 Carson, George R.
 Cohen, Albert
 Cole, Carrie C.
 Dell, Lillian A.; M.D.
 Dowdall, Richard, J.; Ph.G.
 Emmal, Frank S.
 Hammond, Edith S.; A.B.
 Herzog, George K.
 Jackson, Paul K.
 Jacobson, Moses
 Kelly, Alexander S.
 Lucas, William (Jr.)
 Matsuda, Jasaji; D.D.S.
 McConnell, Allen B.
 McCue, James Edward
 McDowell, William
 Mooser, Charles E.
 Poage, Charles A.
 Reckers, William A.
 Reilly, Paul H.; Ph.G.
 Sample, Thomas H.
 Watt, Fred W.

1901: (continued)

Williams, Thomas A.
 Zelinsky, Frank

1902: (April 29)

Blake, William F.; A.B.
 Brady, Joseph G.
 Bridgford, Wayne L.; A.B.
 Christian, James T.
 Circe, William J.
 Connolly, Thomas W.
 Cosgrave, Millicent; M.A.
 Fairchild, Fred R.; Ph.B.
 Fay, George H.
 Finan, Andrew P.; A.B.
 Gibbons, Henry W.; B.S.
 Hannah, James B.
 Martin, Howard G.
 Morrison, Sidney K.
 Nahl, Constante A.
 Nelson, T. J.
 Pache, Frances C.
 Newman, Richard J.
 Petch, Thomas R.
 Rooney, Henry T.
 Schaller, Walter F.
 Scwall, Edward C.; A.B.
 Shields, Mrs. Lillian
 Tillman, Tilton E.
 Williamson, Mark A.

1903: (April 28)

Baker, Wood C.
 Barney Thos. R.
 Brown, Vincent P.
 Calhoun, Jo. V.
 Chamberlain, Chas. T.
 Claves, Wellington I.; Ph.G.
 Coffman, Walter R.; B.S.
 Ph.G.
 Coleman, Chas. L.
 Coleman, Geo. L.
 Collins, Asa W.; D.D.S.
 Doane, Frank L.
 Downing, William E.
 Evans, Morris

1903: (continued)

Freeman, Gideon M.
 Gedney, Fred M.
 Genss, Bruno
 Geraldson, Lena A.
 Gunn, John W. (Jr.)
 Haight, Louis M.; Ph.G., Ph.B.
 Hamilton, Jo. W.
 Hatteroth, William H.
 Hunt, Chas. H.
 Ingram, Chas. H.
 Jadarola, Raimondo; Ph.G.
 Johnson, Llewellyn R.
 Kaelber, Arthur P.
 Koepke, Fred H.
 Leavitt, Granville E.
 Lehnors, Carl H.
 McClurg, Katherine
 Miller, Harold A.
 Munger, Curtis B.
 Parker, Garth; A.B.
 Perry, Carl D.; B.A.
 Pitcher, Louise J.
 Preston, Russel W.
 Read, Wilmot D.
 Robbins, Fenwick W.
 Ross, Harvey L.
 Snyder, Jas. C.
 Strinegger, Henrietta
 Stibbens, Frank H.
 Thompson, Clarence V.
 Turnbull, Mary W.
 Thompson, Elizabeth W.

1904: (April 26)

Adams, A. F.; Ph. G.
 Baldwin, Margaret A.
 Balsiger, John A.
 Banks, William H.
 Bell, Harry D.
 Billingsley, Urban C.
 Bissell, Nelson C.
 Chadwick, Fred C.
 Coblentz, Lambert B.
 Condit, John C.

1904: (continued)

Craviotto, John V.
 Craycroft, Harry J.
 Cunningham, W. E.
 Decker, John C.
 Flemming, Luther P.
 Fraser, Mary L.
 Fritschi, Alfred R.
 Gavey, Walter
 Glaser, Pauline
 Haderle, John A.
 Hopkins, Howard H.
 Irwin, William H.
 Kerby, Clinton (Jr.)
 Madden, Thomas F.
 Mininger, Grace
 Moore, Chester C.
 Morrison, Norman D.
 Mules, John H.
 Munter, Leo; Ph.G.
 O'Brien, James W.
 Page, Clarence W.; A.B.
 Palamountain, William B.
 Peek, Allen H.
 Petch, Llewellyn G.
 Powers, Carl Lamonde
 Powers, Lillian Delger
 Powers, Wm. J.S.
 Somers, Howard
 Spiro, Harry; Ph.G.
 Sumner, Percy
 Thorne, Grace L.
 Tourtillott, Walter W.
 Worthington, George B.
 Young, Audley J.; B.S.,
 M.D.

1905: (May 9)

Alvarez, Walter C.
 Atkinson, Archibald A.;
 A.B.
 Barnard, Ralph P.
 Beattie, John I.
 Berg, Adolph
 Calhoun, Arthur P.

1905: (continued)

Channell, William L.
 Corson, Willis H.
 Dekau, Dorothea W.
 Dolman, Percival; B.S.
 Earing, Edwin W.
 Edmonds, Frank W.
 Egeberg, Julius C.
 Hanlon, John S.
 Hembree, Atlas T.
 Hunt, Reuben H.
 Jacobsen, Peter N.; B.S.
 Loos, Harry C.
 McNamara, Thadeus M. (Jr.); A.B.
 McNulty, Albert H.
 Merrithew, Edwin
 Morris, Henry R.
 Offield, Archibald L.
 Parsons, Edmond W.
 Perry, Joseph B.
 Quinn, William
 Quinn William J.
 Remmel, Alva J.; B.S.
 Smith, Frank H.
 Snoke, John W.
 Specer, Aly M.; Ph.B.
 Swauger, Harry L.
 Taylor, May C.
 Turner, Zilda
 Walder, Calvin A.
 Warren, Harold S.
 Weber, Philip H.
 Zeimer, Irving S.

1906: (May 9)

Adams, Alice D.
 Adams, Wm. L.
 Brown, Fred. A.; A.B.
 Burrows, John R.
 Cooper, George P.
 Curtis, George F.
 Fairchild, Chester H.
 Gibson, Elmer D.
 Gray, Etta L.
 Gundry, Frank J.

1906: (continued)

Harder, Walter G.
 Hayes, Henry H.
 Hyde, Lawrence D.
 King, Charles J.
 Kinslow, Frank A.
 Kirk, Josiah H.
 Koerber, Lillie L.; A.B.
 Lynch, Jerre G.
 Mize, Guy H.
 Mooney, Charles N.
 Palmer, Caroline B.
 Puis, Charles
 Pond, Chauncey P.
 Rude, Anna E.
 Sampson, May H.
 Sewall, Chester D.
 Sonick, Robert F.; A.B.
 Sohler, Frank E.; A.B.
 Vrooman, Lucy C.
 Welti, Lawrence
 Whiting, Frank M.

1907: (May 8)

Abrahamson, Milton
 Birtch, Fayette W.; A.B.
 Buchner, George O.
 Cottrell, Charles C.
 Davis, Fred J.
 Feeley, Matilda A.
 Greenwood, Earl N.; Ph.G.
 Holsclaw, Florence M.
 Jones, Carl P.
 Knappe, Edward V.
 Kremer, Roy
 Lane, Paul H.; PhG.
 Michelson, Lewis
 Montgomery, Wm. O.
 Musante, A. S.; Ph.G.
 Macrae, Anna D.
 Pickett, Jesse C.; A.B.
 Pratt, Clara
 Ransom, Dow H.
 Reinstein, Arthur H.
 Ross, Almond B.

1907: (continued)

Savage, Philip M.
 Seavey, Minnie A.
 Smith, Walter A.
 Thompson, Irving B.
 Wagner, Chester P.
 Whitlock, Robert G.; Ph.G.
 Wing, Lawrence
 Young, Chester I.

1908: (May 6)

Beetley, Clarence H.
 Brownlie, James W.
 Bruman, Arthur K.
 Brusco, H. D.
 Buckman, H.
 Bullington, Perry F.
 Callnon, John W.
 Dozier, Earnest
 Folk, Eugene V.
 Friedberger, William
 Fuller, Roy N.
 Gouguet, Louis J.
 Gould, Ned B.
 Hamlin, Francis A.; A.B.
 Harris, Junius B.
 Lantz, Viola
 Luttrell, Peter H.
 Martinez, Lolita B.
 O'Connor, Thomas H.
 Robbins, Irving W.
 Runckel, George H.
 Schoff, Charles E.
 Shaw, Frederick E.
 Taubles, Gustave H.
 Tolman, George P.
 Wilson, Doxey R.
 Zirker, Daniel W.

1909: (May 6)

Blanchard, T.L.J.
 Boardman, W. W.
 Bowles, F. H.

1909: (continued)

Bullard, M. M.
 Crane, H. W.
 Derham, V. G.
 Fraser, A. D.
 Hall, G. P.
 Hitchcock, E. D.
 Kaufman, B.
 Lawson, F. M.
 McGurk, R. T.
 Miller, P. A.
 Petch, P. H.
 Prusch, W. H.
 Reeng, J. D.
 Savage, W. W.
 Shade, M. A.
 Walsh, J. F.
 Wilt, F. T.
 Wolfe, H. H.
 Wrinkle, G. S.

1910: (May 5)

Anderson, P. J.
 Bullard, C. T.
 Clark, M. F.
 Horne, F. L.
 Hoskins, G.
 Jacobs, W. R.
 Leavitt, E. I.
 Legris, J. H.
 Mackintosh, W. C.
 Manson, G.
 March, I. B.
 Morgan, N. D.
 Mugler, F. R.
 Osgood, W. D.
 Ransom, J. K.
 Tupper, R. B.

1911: (May 12)

Bush, B. H.
 Butler, E. W.
 Caldwell, C. B.

1911: (continued)

Collins, C. D.
 Compagnon, A.
 Cuneo, P. J.
 Cutting, J. A.
 Downing, E. D.
 Gallup, H. A.
 Giovannetti, R. P.
 Gray, A. E.
 Gray, E. E.
 Guinan, E. R.
 Hadley, J. A.
 Hall, C.
 Hartwell, R. W.
 Howard, A. R.
 Jacobs, J.
 Kimberlin, L. O.
 Long, C. C.
 Readan, F. B.
 Seid, M. F.
 Staniford, K. J.

1912: (continued)

Massey, W. H.
 Moore, L. C. W.
 Mylott, M. A.
 Nutting, C. W. (Jr.)
 Parkinson, R. H.
 Powers, A. R.
 Priestly, W. F.
 Schmidt, A. E.
 Scott, J. R.
 Stagner, C. E.
 Stanley, L. L.
 Strange, S. P.
 Willcutt, G. H.

1912: (May 9)

Allen, R. E.
 Barnard, H. D.
 Barnes, J. W.
 Beattie, W. A.
 Bohn, J. E.
 Casper, E. J.
 Cleland, H. O.
 Dillon, J. R.
 Dowling, S. W.
 Franklin, G. C. H.
 Hall, G. J.
 Iseri, K.
 Jones, J. R.
 Kroll, F. W.
 Kuykendall, J. E.
 Langstroth, L.
 Leachman, R. S.
 Long, T. S.
 Lorenz, R. (Jr.)
 Macarthur, W. T.
 McClelland, J. H.
 McNeil, W. T.
 Malone, W. M.

IV. Stanford School of Medicine

1913: (May 19)

Barnett, Geo. de Forest
 Von Geldern, Charles E.
 Harbaugh, Ross W.
 Leach, Charles H.
 Mehrtens, Henry G.
 Munger, Arthur L.
 Stolle, Francis

1914: (May 18)

Brady, Emmet J.
 Cary, Edward G.
 Goodrich, Elizabeth E.
 Hagman, George L.
 McCoskey, Grace
 McPheeters, George C.
 Oliver, Jean R.
 Pruett, John F.
 Siefert, Alfred L.
 Stoltz, Herbert R.
 Thompson, Georgia E.
 Welsh, Orel A.

1915: (May 17)

Crawford, James P.
 Cumberland, Ester C.
 Downing, Samuel R.
 Fuller, Justin K.
 Gilbert, Ramon A.
 Jones, Robert A.
 Lyman, Timothy
 McCarthy, Francis J.
 Read, Jay M.
 Shea, Timothy T.
 Smith, Elmer W.
 Smith, Harry J.
 Welin, Albert F.
 West, Howard F.
 Wetmore, Clyde T.
 Wood, W. Welcome

1916: (May 22)

Ainslie, Charles A.

1916: (continued)

Boyers, Luther M.
 Boyle, William A.
 Callanan, Joseph I.
 Chapman, John F.
 Cline, George W.
 Dunlop, Florence E.
 Fletcher, Harold A.
 Jenkins, Leonard R.
 Jensen, Harold L.
 Kay, Willard E. (Jr.)
 Linden, Charlotte S.
 Moul, Charles T.
 Paulson, John E.
 Phillips, Alfred L.
 Price, Merton J.
 Salomon, Edward
 Schaupp, Karl L.
 Sharpe, Otis A.
 Smallwood, Walter O.
 Strickler, John P.
 Tognazzini, Irene A.
 Viau, Benjamin H.
 Will, Elsa B.
 Wyckoff, Harry A.

1917: (May 21)

Adams, Walter C.
 Andrus, Carlton L.
 Barry, George L.
 Brown, Claude E.
 Gass, Donald
 Degnan, John P.
 Donovan, Mary M.
 Durgin, Eva L.
 Durgin, Rubie M.
 Ehrenclou, Alfred H.
 Hart, Lynn N.
 Hashiba, Geore K.
 Jameson, Bernice
 King, Marion R.
 Kuhn, Orta E.
 Lorentzen, Kay G.
 Millett, George W.
 Missner, Frank R. S.

1917: (continued)

Mullaly, Edward F.
 Murray, Virginia
 Owen, Ethel
 Pruett, Harry J.
 Retbwilm, Lorruli A.
 Stevens, John E.
 Wilcox, Robert W.

1918: (June 17)

Chapman, Herbert S.
 Duncan, John A.
 Helsley, Gordon F.
 Sappington, Clarence O.
 Vanderburgh, Chester M.

1919: (June 16)

Baiocchi, Adolph J.
 Bevier, George Jr.
 Boyd, Edwin F.
 Gard, Thomas A.
 Clattenburg, Herbert A.
 Draper, Roscal L.
 Johnson, Oscar F.
 Kelker, George D.
 Kistler, Ray H.
 Kitagawa, Kay J.
 Minehart, Velear L.
 Moore, William H.
 Nielson, John W.
 Ostroff, Robert A.
 Pettit, Albert V.
 Teeter, Arthur L.
 Wood, Dorothy A.

1920: (June 21)

Carey, Thomas S.
 Cooper, John A.
 Davy, Donald G.
 DeLancy, Chester A.
 Finney, Glara E.
 Finney, Mabel G.
 von Geldern, Hans
 Gifford, Myrnie A.

1920: (continued)

Graves, John M.
 Kusama, Yoshio
 Lee, Russel V.
 Lillie, Ralph D.
 Parrott, James G.
 Reynolds, Lloyd R.
 Roth, Earl F.
 Streichan, Paul H.
 Supple, Albert J.
 Taber, Louise E.
 Tufts, John M.

1921: (June 20)

Azevedo, Manuel D.
 Becker, George H.
 Cooper, Harold J.
 Ellis, Leland W.
 Christ, Orrie E.
 Hood, Arthur J.
 James, Charles A.
 Jameson, Carol E.
 Jones, J. Walter
 Nagel, Gunther W.
 Pritchard, Walter F.
 Richardson, W. P.
 Ross, Delta
 Sampson, Joseph A.
 Shepardson, Dwight E.
 Thompson, Leonard R.

1922: (June 19)

Blaisdell, Frank E. (Jr.)
 Bovard, Gilbert S.
 Bullis, Richard O.
 von Christerson, S.
 Coe, Harry G.
 Crane, William W.
 Dawson, George I.
 Dixon, Robert J.
 Drury, Douglas R.
 Eiskamp, Ehler, H.
 Flood, Randolph G.
 George, James M.
 Haig, Thomas R.
 Hall, James H.
 Jackson, Newton R.
 Jensen, Jens P.
 Leonard, Eileen M.

1922: (continued)

Lewis, John K.
 Miller, Hyman
 Newton, Earl B.
 Northrop, Robert S.
 Schaper, Edward A.
 Sebastian, Charles F.
 Shepardson, Ruth T.
 Swett, Wilber F.
 Twombly, Harriet E.
 Williamson, Helen L.
 Woods, Leonard
 Yamada, So Sabro

1923: (June 18)

Ankele, Gordes, W.
 Azevedo, John A.
 Binkley, Tholow
 Chandler, Loren R.
 Coll, Daniel
 Cowan, Clarence B.
 Fortson, Gordon R.
 Goldstein, Joseph
 Heron, Ivan C.
 Hunter, Clarence L.
 Johnston, Frank R.
 Jones, Gertrude F.
 Melcher, Margaret S.
 Niebel, Herbert L.
 Pischel, Dohrmann K.
 Seitz, Roland P.
 Takahashi, Matsuta
 Takeyama, George Y.
 Warnock, Archibald W.
 Warren, Arthur F.
 Wells, Earl W.
 Wepfer, Alfred V.

1924: (June 23)

Andersen, Emelie E.
 Baker, Harry V.
 Beaver, Harold J.
 Burke, Donald V.
 Carlson, Everett
 Doyle, John J.
 Frame, Paul W.

1924: (continued)

Franklin, Anna C.
 Gallegos, Percy B.
 Gobar, Franklin H.
 Hartman, Hans
 Klingberg, Frances I.
 Lamson, Margaret E.
 Love, Charles A. (Jr.)
 McKenzie, Roger B.
 Marston, Homer E.
 Morris, John K.
 Murphy, William H.
 Myers, Burton A.
 Nelson, Roy F.
 Sanborn, Lewis H.
 Sweeney, John P.
 Trueman, Harold S.
 Wood, Granville N., Jr.

1925: (June 22)

Armitstead, Reo B.
 Botts, Ernest L.
 Boyd, Walter H.
 Brown, George D.
 Clark, Esther B.
 Cody, Bernard A.
 Dougan, Stanley
 Fritschen, William
 Garland, Ruth
 Garth, William L.
 Gerstle, Mark L., Jr.
 Hall, Ernest M.
 Hazeltine, Matthew E.
 Henderson, James G.
 Hewitt, Mary E.
 Hughes, Robert E.
 Kinney, Paul B.
 McCrea, Francis R.
 MacDonald, Frank A.
 McKenney, Arthur C., Jr.
 Merchant, Albert K.
 Nesbit, Reed M.
 Nethercut, Ruth A.
 Rawlins, Aubrey G.
 Somerfield, Harry A., Jr.
 Tainter, Maurice L.
 Williams, Thomas B.
 Wilson, J. Dwight

1926: (June 21)

Baltimore, Louis
 Beattie, Augustus C.
 Beede, Arthur H.
 Brust, Paul R.
 Bulman, Robert
 Carlsmith, Margaret E.
 Cooke, William C.
 Dallas, Donald A.
 Dozier, Dave F.
 French, William O.
 Gentry, Harold G.
 Henry, Archie W.
 Hunnicutt, Leland G.
 MacKay, Eaton M.
 Marsh, Chester
 Marshall, Oscar C.
 Maupin, James L., Jr.
 Page, Benjamin H.
 Poupirt, Pearl S.
 Robertson, Margaret M.
 Rogers, William L.
 Scott, Raymond R.
 Smith, Pearl M.
 Struble, Homer P.
 Sullivan, Cletus S.
 Wimmer, Shirley D.

1927: (June 20)

Alexander, Alden H.
 Ambler, Alfred C.
 Barnard, Leonard B.
 Burkhard, William G.
 Burnett, Clarence I.
 Butterfield, Albert E.
 Crase, Herbert R.
 Edwards, Muriel E.
 Gardner, Kenneth D.
 Hahn, Young D.
 King, Donald E.
 Knox, Irene E.
 Lun&quist, Dell F.
 McBride, Rexford W.
 McBurney, Raymond D.
 Mansfeldt, John H.

1927: (continued)

Mathewson, Carleton, Jr.
 Melkonian, Leon
 Mitchell, Vaughn
 Newman, William, Jr.
 Niebergall, Herbert A.
 Railsback, Oscar C.
 Sutton, Thomas L.
 Thomson, William L.
 Tresidder, Donald B.
 Vinetz, Joseph C.

1928: (June 18)

Barley, Charles V.
 Barnett, Edwin D.
 Bayer, Leona M.
 Chang, David K.
 Cooley, Chester L.
 Eckelberry, Orren S.
 Empey, Lucas W.
 Enright, James R.
 Farr, Walter H.
 Fuendeling, Mervyn J.
 Fuendeling, V.B., (Mrs.)
 Garten, Ruth M.
 Gorham, Curtis B.
 Hall, Victor, E.
 Jimerson, Jack R.
 Johnson, Charles C.
 Kramar, Lowell G.
 Lawler, William H.
 MacColl, Douglass R.
 McCarty, Honora K.
 McGuinness, John E.
 McKenney, Philip W.
 Mathes, Mary E.
 Miller, Philip J.
 Moore, Jack B.
 O'Hara, Francis P.
 Pollock, Wayne E.
 Rathbone, Robert H.
 Robertson, Donald L.
 Saier, Milton H.
 Somers, Melvin R.
 Starks, Dorothy J.

1928: (Continued)

Stockton, Andrew B.
 Strong, Artemas J.
 Thygeson, Phillips
 Vaughn, John O.
 Walker, Samuel J.

1929: (47) (June 17)

Arkush, Albert S.
 Bennetts, Fred. A.
 Bonar, Perry A.
 Borden, Fred. W.
 Borley, Roswell D.
 Brinkerhoff, David E.
 Brown, Norton S.
 Butt, Edward M.
 Cann, George A.
 Cann, William S.
 Carson, James G.
 Cheu, Henry D.
 Cockrill, Jessie R.
 Desimone, Leon O.
 Downing, F. Harold
 Eakin, Margaret A.
 Ferrante, Anthony A.
 Gordon, Morris
 Gray, Earl H.
 Hoffmann, Paul E.
 Howe, Ralph D.
 Husband, Richard D.
 Johnston, Madeline
 Krueger, Albert P.
 Liliencrantz, Eric G.
 Lusignan, Harry R.
 Marlow, Arthur A.
 Martins, Samuel M.
 Mason, Marshall I.
 Miller, John J., Jr.
 Nelson, Clarence H.
 Ogden, Roderick A.
 O'Hara, Joseph J.
 Patek, Sadie D.
 Peirsol, Madge
 Polland, Walter S.
 Roberts, Archie M.
 Ruddy, Lorenz W.
 Schomaker, Theodore P.

1929: (continued)

Stephens, John S.
 Taylor, Kenneth M.
 Thompson, Kenneth J.
 Van Druten, Arthur A.
 Weaver, Harold L.
 Williams, Fleta H.
 Wright, John M.
 Zieber, Roscoe L.

1930: (June 16) (41)

Acres, Lawrence H.
 Bailey, Wilbur P.
 Barmore, Merrill G.
 Behnke, Albert R., Jr.
 Boyes, Joseph H.
 Bruml, Leonard F.
 Burnham, DeWitt, K.
 Case, Evelyn H. (Mrs.)
 Cilley, Herbert A.
 Dunn, Robert D.
 Fox, Daniel S.
 Gaspar, Louis A.
 Graun, Richard E.
 Hamilton, Luke M.
 Hewitt, D.
 Hill, Lowell R.
 Hines, Don C.
 Kulchar, George V.
 Leet, Norman B.
 Loe, Harris D.
 Mahon, Edmund J.
 Marshall, Donald C.
 Mason, Bertha S. (Mrs.)
 Northway, Wm. H., Jr.
 Pasmore, John L.
 Raaf, John E.
 Rixford, Emmet L.
 Rixford, Henry C.
 Sampson, John P.
 Sharp, John C.
 Shumaker, Phil W.
 Skilling, Leonard E.
 Stafford, Claude C.
 Sumner, Wm. A.
 Threlfall, Donald R.
 Van Deventer, Wm. C.

1930: (continued)

Walker, Roland D.
Wardrip, Buford H.
Waters, Max A.

1931: (June) (49)

Allred, William L.
Atkinson, Ray C.
Baldwin, Mary-Catherine
Bigler, Alexander B.
Blumenthal, Enil L.
Brankamp, Robert G.
Brumbaugh, Donald H.
Burbank, Wm. W.
Chope, Harold De Los
Conroy, Thomas F., Jr.
Cox, Alvin J., Jr.
Crum, Rolland A.
Crutchett, Wm. L.
Delphey, Wm. E.
Dong, Collin H.
Exelby, Paul A.
Gafford, James A. Jr.
Gibbons, Henry, III
Hicks, Avery M.
Holman, Cranston W.
Jackson, Carl R.
Jacobs, Melville L.
James, Martha A.
Jones, Malcolm N.
Kay, Raymond M.
Lawler, Philip W.
McDermott, John C.
MacKinnon, Donald S.
McNaught, James B.
McNaught, Robert C.
Newman, Henry W.
Orsborn, Ernest V.
Prescott, Frances F. (Mrs.)
Preston, Mary I.
Read, Jesse W.
Rood, Reginald S.
Shaul, Ethel M.
Silliphant, Wm. M.
Smith, Charles E.

1931: (continued)

Soderstrom, Edwin M.
Steele, Arthur B.
Stephens, Bruce M.
Sweigert, Charles F.
Tippett, George W.
Waegele, Vera C.
Watanabe, Lee M.
Wiper, Thomas B.
Young, Forrest
Young, Marion W. (Mrs.)

1932: (June 20) (43)

Adams, John M.
Andrews, Carroll B.
Becker, Walter N.
Billig, Harvey E.
Borley, Wm. E.
Bullis, John A.
Carpenter, Howard L.
Cary, Wm. S.
Collis, Wm. H. L.
Cutting, Windsor C.
Davis, Stanley S.
Deakers, Roderick P.
Eldridge, Samuel
Fellows, Fred. D.
Fouch, Florence L.
Franceschi, Andres A., Jr.
Francis, Cyril C.
Hays, Marcia S.
Iriki, Walter K.
Jacobs, Lewis G., Jr.
Johnson, Walter A.
Leach, Charles W.
Lewis, Ralph C.
Lusignan, Frank W.
Mermod, Camille
Mermod, Leon E.
Moore, Jack K.
Newman, Robert W.
Pearson, Bruce R.
Quinn, Edward M.
Reich, August
Richardson, George C.

1932: (continued)

Rutherford, Findlay deP.
 Sapero, James J.
 Sapiro, Nathan A.
 Schmidt, David G.
 Slater, Verden G.
 Strong, Kenneth C.
 Uhl, George M.
 Van Zandt, Albert V.
 Ward, John H.
 Wheelis, John M., Jr.
 Wilbur, Leonard F.

1933: (June 19) (48)

Azevedo, Joseph L.
 Bancroft, Martin F.
 Black, William C.
 Boone, Thomas H.
 Boscoe, Anthony R.
 Brink, Holden E.
 Clark, Fred A., Jr.
 Cohn, Jack
 Cohn, Roy B.
 Cummings, Harold R.
 Davis, Fred J., Jr.
 Elmer, Anton D.
 Escher, Earl W.
 Flickinger, Donald D.
 Freibrun, Jacob L.
 Gant, Hoyt R.
 Giberson, Augustus F.
 Godett, Michael R.
 Green, Marion M.
 Greene, Wm. W.
 Haman, John C.
 Hartman, Rodney B.
 Heiges, Laurence E., Jr.
 Hollingsworth, John B.
 Hunt, Robert W.
 Larsen, Leonard H.
 McKenney, John P.
 Norberg, Raymond W.
 O'Brien, George F.
 Padgett, Vernon W.
 Pollak, John D.
 Prescott, Walton

1933: (continued)

Quigley, John S.
 Rosasco, John L.
 Rytand, David A.
 Shannon, Rollin R.
 Smith, Frank H.
 Snoke, Albert W.
 Specker, Lewis, Jr.
 Thebaut, Wm. M., Jr.
 Thorbert, Harold C.
 Turkel, Ashur S.
 Walker, Ralph J.
 Weeks, Carrol L.
 Wells, Phillip H.
 Wessels, Arthur L.
 Whitecotton, George O.
 Wong, Alfred K.

1934: (June 18) (41)

Attwood, Cyril J.
 Barker, Harry E.
 Barr, James A.
 Baxter, Philip N.
 Cramer, Harold D.
 Crever, James W., Jr.
 DeSmet, Delbert H.
 Dietrich, Frank S.
 Flyer, Harry
 Fung, Lung
 Gaynor, Edmund P.
 Gibson, Wm. R.
 Hartman, Milton M.
 Heppner, Myer J.
 Howard, Lot D., Jr.
 Jenkins, Kenneth B.
 Kusumoto, Niroku H.
 Madden, Sidney C.
 Mainwaring, George F.
 O'Connell, Thomas F., Jr.
 Ownby, James, Jr.
 Page, Ernest W.
 Pate, Waldo H.
 Prisinzano, Gandolfo
 Querna, Milburn H.
 Robson, George B.
 Scholtz, Julius R.

1936: (continued)

Pratt, Donald R.
 Rantz, Lowell A.
 Rubenstein, Victor G.
 Sanford, Dudley P.
 Schulte, Thomas L.
 Schunke, Gustave B.
 Shahinian, Lee E.
 Simpson, Robert L.
 Tarr, Danson M.
 Taylor, John O.
 Thurlow, John F.
 Toy, Arthur J.
 Van Horn, Philip R.
 Wayland, L. C. Newton
 Weddle, Robert P.
 Wirt, Sherman O.
 Ziegler, James E., Jr.

1937: (June 13) (53)

Andersen, Edwin
 Armanini, George B.
 Bagley, Charles M.
 Barton, Edward W., Jr.
 Blanchard, Leland B.
 Blume, Fred E.
 Brophy, Truman W., III
 Castberg, Harold T.
 Clegg, John G.
 Dirks, Maitland S.
 Dorgeloh, Justin R.
 Fahlen, Charles C.
 Fountain, Wm. E.
 Hepp, Virgil E.
 Jameson, Moroni
 Jing, Fred Q.
 Klinefelter, James A.
 Laird, Terry T.
 Lentz, Joseph S.
 Lestrohan, Paul F.
 Lipsitch, Lester S.
 Mathews, Benton D.
 Myers, Jack D.
 Newhouse, Robert M.
 Newman, William J.
 Northway, Fred. J.
 Novacovich, George G.

1937: (continued)

Null, John W.
 Null, Robert P.
 Ogaard, Adolph T.
 Peeke, Edwin S.
 Powers, Clara L.
 Richardson, Arthur P.
 Scarborough, Charles G.
 Shelton, Robert M.
 Simmonds, Raymond J.
 Smith, Robert L.
 Storey, Alfred D.
 Tarr, Agnes D. (Mrs.)
 Tarr, Lloyd N.
 Terwilliger, Marion P.
 Tiffin, Mary E.
 Todd, Max A.
 Voris, Albert T.
 Ward, Henry C.
 Webster, George E.
 Webster, George Van
 O'L.
 Welch, Jules C., Jr.
 Wells, Ruth
 Wells, Walker M.
 Wendt, Douglas D.
 Woods, Ward W.
 Zipf, Albert F.

1938: (June 19) (53)

Anderson, Bruce M.
 Baker, Edward W.
 Beard, Rodney R.
 Bormann, Edwin L.
 Brinckerhoff, Albert J.
 Buehler, George S.
 Camerson, Wm. M., Jr.
 Crismon, Jefferson M.
 Cronkite, Alfred E.
 Davens, Edward
 Davis, Joseph H.
 DeLamater, James N.
 Denicke, Ernest W.
 von Dessonneck, Emil S.
 Downey, Vincent M.
 Farber, Leslie H.
 Feldman, Sanford E.

1938: (continued)

Fisher, Jerome K.
 Galgiani, John V.
 Gardenier, Crane
 Gray, Logan
 Guerard, Catherine R.
 Halter, Bert L.
 Hammond, Howard, Jr.
 Hauser, Rupert Van A., Jr.
 Herzog, George K., Jr.
 Hoagland, Paul I., Jr.
 Howard, Harry P.
 Hurlbut, Wilbur B.
 Iverson, Jesse J.
 Johnson, Cyril H.
 Johnson, Herbert H., Jr.
 Johnston, Wm. R.
 Jordan, Philip J.
 Leivers, Alfred E.
 Libbey, Joseph H., Jr.
 McGinnis, James E.
 MacKinnon, Donald G.
 Macklin, Edward A.
 Maino, Charles R.
 Marple, Charles D.
 Mitchell, Sidney P.
 Mannini, Leo D.
 Norris, Frank
 Norwood, Jackson
 Pearson, Harold E.
 Pierce, Glenroy N.
 Plate, Agnes G.
 Rea, Stanley L.
 Reich, Thomas
 Richmond, Gordon W.
 Russell, Wm. O., Jr.
 Schwartz, Charlton R.
 Schwartz, Sidney
 Shidler, Fred. P.
 Simon, Stanley J.
 Samll, Willard S., Jr.
 Sutterlin, Fred. K.
 Tillman, Carl-Gustaf D.
 Van Winkle, Walton, Jr.
 Wallace, Wm. B.
 Wasserman, Nathan
 Wood, Dennistoun, Jr.

1939: (June 18) (57)

Afflerbaugh, Jack K.
 Altman, Allen A.
 Bassett, David L.
 Belz, Jack F.
 Blasdel, Edward K.
 Bonyng, Thomas W.
 Bowles, Frank H., Jr.
 Brodrick, Richard B.
 Brown, John S.
 Buehler, Lyle H.
 Carlson, Carl O.
 Clinite, Wm. D.
 Crismon, Cathrine S. (Mrs.)
 Curtis, Mark S.
 Dailey, Morris E.
 Edmond, Julian, Jr.
 Foster, Thomas H.
 Ghiglieri, Louis L.
 Hatch, Francis N.
 Hinman, Harry T., Jr.
 Hodgson, Henry M.
 Huff, Wm. C.
 King, Ralph H.
 Krupp, Marcus A.
 Lawrence, Herbert
 Lubin, Albert J.
 Luke, Ian
 McGregor, Mar W.
 Magee, Thomas L., II
 Melody, George F.
 Meyer, Vincent S.
 Offield, Leonard D.
 Osell, Levin N.
 Palmer, Alfred M.
 Phillips, James W.
 Pinkham, Roland D.
 Powers-Heald, Fred.
 Ray, Jesse L.
 Richards, Victor
 Rosenberger, Homer G., Jr.
 Rudee, Wm. J.
 von Saltza, John W.
 Savage, James R.
 Schmidt, Otto E.
 Shaffer, Robert N.
 Sherertz, Richard C.

1939: (continued)

Silverstein, Jerome L.
 Smith, Wm. W.
 Stephens, Stuart B.
 Terwilliger, Calvin K.
 Traub, Leo M.
 Westdahl, Philip R.
 Whitsett, Leon J.
 Wilkinson, Wm. H.
 Willett, Forrest M.
 Wooliever, Francis J.
 Zoet, August G.

1940: (June 16) (56)

Anderson, Donald V.
 Bechtol, Charles O.
 Bell, Nelson C.
 Bergman, John H.
 Boyers, L. Morgan
 Browning, George L.
 Buehler, John M.
 Clark, Wallace D.
 Cleary, Joseph
 Clegg, Harding
 Cleland, Robert S.
 Collins, Thomas A.
 Craycroft, Charles B.
 Crumrine, Martin H.
 Dahleen, Henry C.
 Dart, Edward E.
 Dennis, Robert L.
 Dillon, Richard
 Downing, George C.
 Eastman, Frank C.
 Footer, Arthur W.
 Hampton, Robert R., Jr.
 Hilgard, Josephine R.
 Hope, John W.
 Jenkins, Herbert W.
 Joseph, Peter S.
 Karnofsky, David
 Laird, George J.
 Lerch, Theodore T.
 Lhamon, Wm. T.
 Michelson, Robin P.
 Mitchell, Allen C.

1940: (continued)

Mitchell, Earl B.
 Moore, Chester G., Jr.
 Pasqualetti, Roy A.
 Petit, Donald W.
 Phillips, Robert M.
 Pollack, John V.
 Reinhardt, Paul H.
 Saunders, Wm. W.
 Schulte, John W.
 Sharrocks, Horace F.
 Shenson, Ben
 Shepherd, Ford
 Shoor, Mervyn
 deSilva, Paul L.
 Steelquist, John H.
 Stiegeler, Augustus F.
 Storey, Marion H.
 Tanner, Owen R.
 Treadwell, Richard R.
 Treadwell, Robert H.
 Tuschka, Otto J., Jr.
 Velarde, Albert L.
 Will, Otto A.
 Yee, James

1941: (June 15) (60)

Abrams, Alan L.
 Adams, Burton E.
 Anderson, Le Grande
 Ballard, Francis E.
 Bine, Rena, Jr.
 Bostwick, Jack R.
 Bradshaw, Stanley P.
 Bryner, Sergius
 Buehler, Elise M.
 Colburn, Bruce A.
 Cronkite, Eugene P.
 Dillon, James R., Jr.
 Dorcy, Laurence H.
 Dowrie, James O.
 Drew, Wm. F.
 Eaton, Charles H.
 Farber, David J.
 Ferris, George J.
 Footer, Grace G.

1941: (continued)

Fujimoto, Tadashi
 Gardner, Ernest D.
 Hall, Samuel P.
 Hamilton, James A.
 Hansen, Fred M.
 Howard, Francis E.
 Hughes, Jack R.
 Kambara, George K.
 Kleinsorge, Henry E., Jr.
 Kohlmoos, Heinrich W.
 Kuzell, Wm. C.
 Laubhan, Royle D.
 Loehr, Robert A.
 Lyons, Harold M.
 McBain, Earle H.
 McLin, Edward D.
 Merritt, John F.
 Molineux, Wm. L.
 Morrison, Richard C.
 Murphy, Wm. D.
 Nunes, Aubrey J.
 Pait, Charles F.
 Pollock, Ralph C., Jr.
 Purdy, Ralph S., Jr.
 Reynolds, John L.
 Roberts, Chester L.
 Scarlett, Samuel L.
 Schaefer, Anton H.
 Schmidt, Ruth M.
 Sprague, Charles P.
 Steiner, Jesse F.
 Stowell, Robert E.
 Strong, Edward K., III
 Stuart, Margaret M.
 Tatlock, Jean F.
 Thomas, Sydney F.
 Thompson, Robert P.
 Tinsley, Clarence M., Jr.
 Welles, George E., Jr.
 Whiffen, Robert A.
 Winsor, Travis

1942: (June 14) (58)

Abramson, Mason H.
 Bacher, John A.
 Bergman, George R.

1942: (continued)

Bonar, Leland W.
 Borden, Abraham G.
 Boyd, Robert I.
 Boyer, Louis E.
 Cheredes, John S.
 Denlinger, Ross B.
 Deterling, Ralph A., Jr.
 Ellis, John F.
 Frick, William O.
 Gardner, Alfred E.
 Gebhardy, Louis P.
 Gerber, Marvin L.
 Grayson, Charles E.
 Hara, Masauki
 Hillyer, Edwin A.
 Hurley, Melvin T.
 Keig, William C.
 Kleiser, Grace D.
 Klinefelter, Philip D.
 Lack, Arthur R., Jr.
 Lawrence, W. Sherwood
 Lee, George Q.
 McGreer, Charles F.
 MacKenzie, Alexander S.
 Maddux, Richard H., Jr.
 Madlem, Leo S., Jr.
 Masson, John M.
 Meier, August W.
 Miller, Leo
 Mlejnek, Leland A.
 Mohr, Selby R., Jr.
 Mollenhauer, Robert L.
 Morton, Milton C.
 Niebauer, John J.
 O'Hare, James O.
 Olson, Raymond N.
 Oneal, William J.
 Paist, Theresa W.
 Quillinan, Robert H.
 Richardson, Glark M.
 Rickenberg, Robert E.
 Robinson, Francis L.
 Schaupp, Karl L., Jr.
 Sears, David R.
 Simpson, Robert W.
 Simpson, Russell E., Jr.
 Sultan, Ernest H.

1942: (continued)

Tainter, Eugene G.
Ushiro, California S.
Van Riesen, Milton H.
Van Tassell, Lloyd R.
Walsh, Joseph F.
Wells, Robert W.
Williams, Gordon F.

1944: (January 14) (56)

Ayres, Samuel, III
 Baker, John M.
 Barbieri, John K.
 Barnes, Eldred W.
 Beebe, Selden R.
 Blodget, Rush M., Jr.
 Borun, Elmer R.
 Cardon, Rey L.
 Chapman, George W.
 Clark, Wm. H.
 Collins, Joseph C.
 Doherty, Edward W.
 Duisenberg, Charles E.
 Durfee, Raphael B.
 Edwards, William M.
 Ehrhart, John D., Jr.
 Fien, Irving
 Gonzalez, Richard I.
 Gratton, Richard R.
 Hall, Cameron B.
 Halpern, Richard M.
 Hawkins, George W.
 Jacobs, Byron P.
 Jensen, Garver L.
 Kirtland, Howard B., Jr.
 Lewis, Alvin E.
 Livingston, Robert B.
 Nordstrom, Ray C. (April 14)
 McLaughlin, Mary M.
 Martin, James W.
 Michelson, George A.
 Miller, Marcia
 Miller, Woodrow
 Newton, Charles B.
 Noyes, Chester B.
 Persike, Edward C., Jr.
 Pingree, Louis J.
 Radakovich, Michael
 Read, John M.
 Riordan, Daniel C.
 Robinson, Clinton W.
 Robson, Philip G.
 Rockwell, Albert G., Jr.
 Salomon, Maurice S.
 Schaupp, John B.
 Sedgwick, Darrell S.
 Shaffrath, Max D.

1944: (continued)

Sheldon, Robert W.
 Smith, Edmund L.
 Spickard, Warren B.
 Steel, Lowell F.
 Walker, Thomas F., Jr.
 Wilbur, Wm. A.
 Woolley, LeGrand G.
 Zack, M. Morris
 Smith, Clyn, Jr. (April
 14)

BIBLIOGRAPHY

Books

- Elliott, Orrin L. Stanford University, The First Twenty-five Years. Stanford University: Stanford University Press, 1937. Pp. xiii-624.
- Harris, Henry California's Medical Story. San Francisco: J. W. Stacey, Inc., 1932. Pp. v-421.
- Jones, W. C. Illustrated History of the University of California. San Francisco: F. H. Dukessmith, 1895.
- Johnson, Allen and Malone, Dumas (eds.). Dictionary of American Biography. Vol. IV. New York: Charles Scribner's Sons, 1930.
- Jordan, David S. The Days of a Man. 2 vols. Yonkers-on-Hudson, New York: World Book Co., 1922. Vol. 1, pp. xxviii-710; Vol. 2, pp. xxviii-906.
- Kelly, H. A. A Cyclopaedia of American Medical Biography. 2 vols. Philadelphia and London: W. B. Saunders Co., 1912.
- National Cyclopaedia of American Biography. Vols. XXII and XIV. New York: James T. White & Co., 1932.
- Shuck, Oscar T. Representative Men of the Pacific. San Francisco: Bacon and Co., Printers and Publishers, 1870.
- Shuman, John W. California Medicine (A Review). A. R. Elliott Publishing Company, 1930.

Announcements

Announcements of the Herztein Medical Lectures. (Available in Lane Medical Library, San Francisco, California).

Announcements of the Lane Medical Lectures. (Lane Medical Library.)

Announcements of the Lane Popular Lectures. (Lane Medical Library.)

Annual Announcements of the Cooper Medical College for the years 1884-1909. (Lane Medical Library.)

Annual Announcements of the Department of Medicine of Leland Stanford Junior University for the years 1910-16. Stanford University: Published by the University.

Annual Announcements of the Medical College of the Pacific for the years 1916-45. Stanford University: Published by the University.

Annual Announcements of the Medical College of the Pacific for the years 1872-75, 1877-79, 1881-82. (Lane Medical Library.)

Annual Announcements of the Stanford School of Medicine for the years 1916-45. Stanford University; Published by the University.

Catalogue of the University of the Pacific, Santa Clara, California, 1859-60. San Francisco: Towne and Bacon, 1860.

Catalogue of the University of the Pacific, Santa Clara, California, 1862-63. San Francisco: Towne and Bacon, 1859.

First Announcement of the Medical Department of the University of the Pacific. San Francisco: Towne and Bacon, 1859.

Ninth Annual Announcement of the Medical Department of the University of the Pacific, Session of 1871. San Francisco: Towne and Bacon, 1860.

Second Annual Announcement of the Medical Department of the University of the Pacific, Session of 1860. San Francisco: Towne and Bacon, 1860.

Addresses, Articles, Editorials, Reports

A Challenge to California and the West. Stanford University School of Medicine, 1932.

"Address Delivered by Dr. L. C. Lane," Pacific Medical and Surgical Journal Vol. XIX, Dec., 1876, pp. 289-309.

Addresses at the Opening of the Medical Department of the University of the Pacific at Musical Hall, San Francisco. San Francisco: Towne and Bacon, 1859. Pp. 6-20.

"Alumni Association of the Medical College of the Pacific," Pacific Medical and Surgical Journal Vol. XXI, November, 1878, p. 288.

An Address Delivered to the Graduating Class of Cooper Medical College, Nov. 13, 1890 by Levi Cooper Lane, M.A., M.D., (Berlin), M.R.C.S. (England), L.L.D. Reprinted from the Occidental Medical Times January, 1891. Pp. 1-27.

"Annual Meeting of the American Medical Association," Pacific Medical and Surgical Journal Vol. XIV, June, 1871.

Ayer, Washington "Reminiscences of the Life and Labors of Elias Samuel Cooper," Occidental Medical Times Vol. VII, 1893.

Annual Reports of the Presidents of Stanford University for the years 1905-45. (The fifth to the forty-second Annual Report). Stanford University: Published by the University.

Burns, Robert E. The First Half-Century of the College of the Pacific. Stockton, 1946. (M.A. Thesis submitted to the Department of History--College of the Pacific).

California and Western Medicine 1925, p. 599.

Christian Advocate, March 21, 1861. Cited in the San Francisco Medical Press April, 1861, pp. 98-99.

Circular Announcing the Opening of the Lane Hospital
included in the Cooper Medical College Announce-
ment for 1895.

Cooper College Addresses of Lane and Taylor Delivered on
the Occasion of the Dedication of Cooper Medical
College Building, 1882. San Francisco: A. L.
Bancroft and Company, 1882.

Cooper, Elias S. "Editor's Table," San Francisco Medical
Press Jan., 1860, p. 1; April, 1860, p. 63; Oct.,
1860, pp. 234-242; Jan., 1861, pp. 45 and 50-51;
April, 1861, pp. 98-100; July, 1861, p. 192; April,
1862, pp. 87-88, 98, 108-109.

Gibbons, Henry, Sr. Fifty Years Ago. An address de-
livered to the graduating class of the Medical
College of the Pacific in 1878. San Francisco:
A. L. Bancroft & Co., Printers 1878. Pp. 1-23.

Gibbons, Henry, Sr. Introductory Lecture to the Eighth
Session of the Medical Department of the Univer-
sity of the Pacific, July 5, 1870. San Francisco:
John H. Carmany & Co., 1870. Pp. 3-14.

Gibbons, Henry, Sr. "Some Defensive Remarks on the Medical
Education and Medical Schools of America, and
Particularly of California," Pacific Medical and
Surgical Journal Vol. XIX, June, 1877, pp. 1-9.

Gibbons, H., Sr. and Gibbons, H., Jr. "Editorial," Pa-
cific Medical and Surgical Journal Vol. IV, July,
1870; January, 1871, p. 375; Dec., 1871, pp. 306-7;
Vol. XV, July, 1872, pp. 97-8; Vol. XIII, Dec.,
1871, p. 306; Vol. XV, Jan., 1873, p. 408; Vol. XV,
April, 1873, pp. 550-1; Vol. XVI, March, 1874,
p. 527; Vol. XVIII, March, 1875, p. 507; Vol. XIX,
June, 1876, p. 37; Vol. XIX, Dec., 1876, p. 322;
Vol. XVIII, August, 1875, p. 140; Vol. XX, April,
1878; May, 1878, pp. 568-9; Vol. XXI, Feb., 1879,
p. 422; Vol. XXV, Nov. & Dec., 1882, pp. 266-7.

"Introductory Exercises of the Medical Department of the
University of California," Western Lancet 1873,
p. 378.

"Items of News," Pacific Medical and Surgical Journal
Vol. III, May, 1870, p. 575.

Lane Hospital Training School for Nurses A circular of information published by the School in 1909.

Lane, Levi C. "Editor's Table," The San Francisco Medical Press Vol. III, Oct., 1862, pp. 226-243; April, 1863, pp. 52-59, 124; April, 1864, p. 30.

Lane, Levi C. "A Tribute to Dr. E. S. Cooper," Occidental Medical Times, Vol. VII, 1893, p. 609.

Lane, Levi C. Dr. Henry Gibbons, In Memoriam, First of the "Lane Lectures" of 1885, delivered in Cooper Medical College, January 2nd. San Francisco: Howard & Pariser, Printers and Publishers, 1885, pp. 3-22.

Lane, Levi C. "Notice to Medical Students," San Francisco Medical Press, January, 1864, p. 191.

"Letter from Levi C. Lane, M.D.," Pacific Medical and Surgical Journal Vol. XVIII, Sept., 1875, pp. 153-7.

Letter to the Alumni of Cooper Medical College Dec. 20, 1911, pp. 1-3. (Lane Medical Library).

"Medical College and the Public," Pacific Medical and Surgical Journal, Vol. VII, 1864, p. 325.

"Minutes of the Proceedings of the Convention and of the Medical Society of the State of California. Held in Sacramento, March, 1856," California State Medical Journal. Edited by John F. Morse. July, 1856. Pp. 5-8.

"Minutes of the Toland Faculty," Quoted by H. Harris, California's Medical Story. San Francisco: J. W. Stacey, Inc., 1932. P. 136.

"Miscellany," Pacific Medical and Surgical Journal Vol. XXV, Jan., 1883, p. 384.

Morison, James "Obituary," Pacific Medical and Surgical Journal Vol. V., 1862, p. 308.

Morse, John F. "Editor's Table," Pacific Medical and Surgical Journal Vol. VII, 1864, pp. 324-5, 354, 374-5.

Pamphlet announcing the opening exercises of the Medical Department of Stanford University. (Stanford Collection).

Peoria News, 1854. Quoted by David Wooster in the Pacific Medical and Surgical Journal Vol. II, 1859, p. 498.

"Personal," Pacific Medical and Surgical Journal, Vol. XVII, Nov., 1874, p. 306; January, 1875, p. 413.

Pioneering in Health by Loren Roscoe Chandler, M.D., Dean of the Stanford School of Medicine. (A brochure offered by the Stanford Associates featuring the work of the Stanford School of Medicine.)

Postscript to the San Francisco New Letter Vol. 25, No. 25, July 10, 1875.

Proceedings in the Case for Damages for Alleged Malpractice in the Performance of the Caesarian Operation. Elkanah H. Hodges and Mary E. P. Hodges, Pliffs. vs. E. S. Cooper. Tried in the fourth District Court, San Francisco, John S. Hager, Judge, November, 1858. Phonographically recorded by Charles A. Sumner.

"Professor Toland's Introductory," Pacific Medical and Surgical Journal, Vol. VII, 1864, p. 322.

"Proceedings of the California State Medical Society," Pacific Medical and Surgical Journal, Vol. XVI, May, 1874, p. 616; Vol. XVII, May, 1875, p. 605.

Rixford, Emmet "A Brief Account of the History of the Lane Medical Library and of the Cooper Medical College," Address at the Dedication of the Lane Medical Library, November 3, 1912. Stanford University: Published by the University, 1912. Pp. 6-17.

Rixford, Emmet "Levi Cooper Lane," Reprint from Surgery, Gynecology and Obstetrics, Vol. LVI, Feb., 1933, 246-250. Chicago: Surgical Publishing Co., 1933. Pp. 1-5.

- Rixford, Emmet Levi Cooper Lane, M.D.--The Lane Popular Lectures, Reprint from California and Western Medicine Vol. XXXVII, No. 6, Dec., 1932; Vol. XXXVIII, No. 1, Jan., 1933. San Francisco: 450 Sutter Street. Pp. 1-19.
- San Francisco Chronicle "Lane Obsequies Will be Private," February 20, 1902, p. 8, column 1.
- Smith, Wm. F. Valedictory Delivered at the Eighth Annual Commencement of the Medical Department of the University of the Pacific, December 7, 1870. San Francisco: Hester & Brown, 1870. Pp. 3-15.
- "Sixth Annual Meeting of the State Medical Society," Pacific Medical and Surgical Journal Vol. XVIII, May, 1876, pp. 579-80.
- Stanford School of Nursing, Announcement of 1930-31.
- Stanford University Hospitals, Tenth Annual Report, 1920-21.
- Stillman, J. and McNutt, W. F. "Editorial," California Medical Gazette Vol. II, June, 1870, p. 220.
- Stillman, J. and McNutt, W. F. "Editorial," California Medical Gazette, Vol. II, August, 1870, p. 257-8. Citing Resolutions of the Executive Committee of the Board of Regents of the University of California, and a Communication from the Medical Department of the University of the Pacific.
- "Stillman-Rixford Era of the Department of Surgery," by Arthur L. Fisher, M.D. Stanford Medical Bulletin. Published quarterly by the Stanford Medical Alumni Association, May, 1942, Vol. I, No. 1, pp. 9-11 and concl. on p. 24.
- Taylor, Edward R. and Morse, John F. Addresses on the Occasion of the Commencement Exercises of the Medical Department of University College, Nov. 4, 1873. San Francisco: J. Winterburn & Co., 1873. Pp. 3-31.
- "Three Medical Schools in San Francisco--The University of California," Pacific Medical and Surgical Journal, Vol. IV, Feb., 1871. Pp. 403-06.

"Toland Medical College," Pacific Medical and Surgical Journal, Vol. VII, 1864, p. 373.

Trask and Wooster, D. "Editor's Table," Pacific Medical and Surgical Journal Vol. II, 1859, pp. 27-8.

Trenor, E. and Babcock, H. P. "Editorial," Western Lancet January, 1872, p. 51.

Vaughan Report A copy of a letter sent to President J. C. Branner by V. C. Vaughan on June 9, 1914. (Stanford Collection).

Why Stanford's Medical Problem is your Problem A 13 page supplement to The Stanford Illustrated Review Published by the Alumni Association of Stanford University. Vol. XXIV, Nov., 1922, No. 2.

Wooster, David "Cesarian Operation-Case--False Diagnosis--Recovery of the Woman," Pacific Medical and Surgical Journal Vol. I, 1858, pp. 89-96.

Wooster, David "Editor's Table," Pacific Medical and Surgical Journal. Vol. I, 1858, p. 32; Vol. II, 1859, p. 496-8.

Unpublished Material

Minutes of the Board of Trustees of the College of the Pacific. Vol. II, 1854-1884.

Cooper, Elias S. Report of an Operation for Removing a Foreign Body from Beneath the Heart. San Francisco: Whitton, Towne & Co., 1857.

"Death of Dr. Logan," Pacific Medical and Surgical Journal Vol. XVIII, March, 1876, pp. 491-2.

DeForest, Clara "Reminiscing in the Attic of the Lane Medical Library," Stanford Medical Bulletin Vol. II, No. 7, Feb., 1944, pp. 15-19.

"Dr. Levi Cooper Lanc," Editorial in the Pacific Medical Journal March, 1902, p. 162.

- "Editorial," Pacific Medical and Surgical Journal
Vol. XXXVIII, p. 236 and p. 97.
- Ellinwood, C. N. Valedictory Address to the Graduating
Class of the Medical College of the Pacific,
November, 1879. San Francisco: W. M. Hinton &
Co., Printers, 1879. Pp. 3-7.
- Emge, Ludwig A. San Francisco's First Successful Cesarean
Section. Presidential Address to the Pacific
Coast Society of Obstetrics and Gynecology.
- Exercises Held at Lane Hall of Cooper Medical College
In Memory of Doctor Henry Gibbons, Jr., on Sunday,
December 8, 1911. San Francisco: Taylor,
Nash & Taylor, 1911. Pp. 1-18.
- Exercises in Memory of Levi Cooper Lane Held at Lane
Hall of Cooper Medical College on Sunday, March
9, 1902. San Francisco: Stanley-Taylor Co.,
1902. Pp. 7-49.
- Fourgeaud, V. J. and Morse, J. F. "Editor's Table,"
Pacific Medical and Surgical Journal, Vol. VII,
1864, pp. 296-7.
- Gardner, F. T. King Cole of California. Reprinted from
the Third Series of the Annals of Medical History.
New York: Paul B. Hoeber, Inc. Vol. II, No. 3,
pp. 245-258; Vol. II, No. 4, pp. 319-347; Vol. II,
No. 5, pp. 432-442.
- "General Summary," Pacific Medical and Surgical Journal
Vol. XVI, May, 1874, p. 636.
- Gibbons, Henry, Sr. "Editor's Table," Pacific Medical
and Surgical Journal July, 1864, pp. 80-1; April,
1865, pp. 32-3.

LANE MEDICAL LIBRARY

This book should be returned on or before
the date last stamped below.

50	Jun 6 1950	
FEB 19 1950	DEC 10 1950	
MAR - 9 1950		
APR 1 1950		
AUG 12 1950		
FEB 18 1951	AUG 2 1951	
	MAR 20 1951	
APR 27 1951		
MAY 7 1952	DEC 20 1971	
	NOV 3 1979	
MAY 16 1952		
MAY 30 1952		

DO NOT REMOVE FROM THE
LIBRARY.

116465

DO NOT REMOVE FROM THE
LIBRARY.

116465

